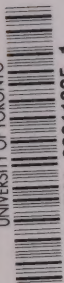


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SURVEY OF ONTARIO DENTISTS 1978-79

part.1 Descriptive Findings.

RESEARCH REPORT no. 31

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ONTARIO DENTISTS 1978-79:

PART I - -
DESCRIPTIVE FINDINGS

by

D. W. Lewis and H. Cameron

January, 1980

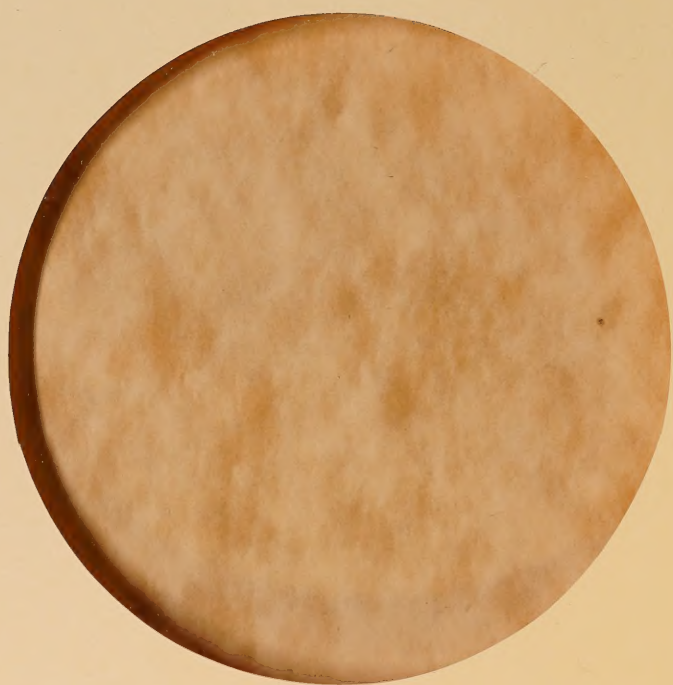
RESEARCH REPORT

*issued by the
Dental Health Care
Services Research Unit*

THE FACULTY OF DENTISTRY



UNIVERSITY OF TORONTO



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ONTARIO DENTISTS 1978-79:

PART I - -

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January, 1980

Research Report No. 31

Dental Manpower Report No. 5 (DM 381)

Research supported in full through
Demonstration Model Grant DM 381 of
The Ontario Ministry of Health

Dental Health Care Services Research Unit
Faculty of Dentistry, University of Toronto
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Similarly, thanks is due to the dental and non-dental staff of the Ontario Ministry of Health who made helpful suggestions regarding the questionnaire and the need for specific kinds of information.

SURVEY OF ONTARIO DENTISTS 1978-79. PART I -- DESCRIPTIVE FINDINGS

SUMMARY

Nearly 86% of Ontario's licensed dentists responded to a dental practice questionnaire conducted in late 1978 and early 1979 by the Dental Health Care Services Research Unit of the Faculty of Dentistry, University of Toronto. This report presents some of the descriptive findings resulting from the analysis of a large sub-sample of the dentist respondents -- all full- and part-time private practitioners (N = 3171 respondents). This group of dentists is further sub-divided into general practitioners (N = 2730 respondents) and clinical specialists (N = 352 respondents) in the analysis.

The first major section of the report presents a Profile of Ontario Dentists. The second section -- Profile of Ontario Private Dental Practices -- consists of a number of sub-sections describing practice organization, office work characteristics and patient visits, office equipment, staff characteristics and practice activity.

The mean age of Ontario's private dental practitioners is 41.8 years; 95% of them are male. Two-thirds were born in Ontario and 12% in other parts of Canada. The majority of them, 85%, graduated from either the Faculty at the University of Western Ontario (8%) or the University of Toronto (77%). Many private practitioners (38%) graduated recently, between 1970 and 1978.

Two-thirds of all private practitioner respondents practised in the province's Central Regional Planning Area. Just over 43% were located in cities of 250,000 persons or more, and 10.6% were in places under 10,000 in population. About 17% indicated they had a second dental office, and 2% a third office.

The vast majority of private practitioners, 86%, were in general practice; ten percent were certified specialists of whom 56% were either orthodontists or oral surgeons.

The estimated average retirement age was 61.2 years.



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Most general practitioners (60%) had solo practices, followed by cost-sharing (18%), associate (14%) and partnership (5%) forms of practice. The average number of dentists in the non-solo practices was 2.7.

About 40% of general practitioners and 54% of clinical specialists operated their practice under a management company. Just over three-quarters of general practitioners and 84% of clinical specialists would incorporate their practices if allowed to by law.

Nearly 95% of general practitioners utilize a recall system, with 59% using a six-months and 32% individual assessment as the bases for recall.

Nearly 5% of general practitioners and 15% of clinical specialists indicated that they also treated patients on a salaried basis.

During 1978 private practitioners worked 45 weeks per year and 4.6 days per week, on average. General practitioners worked, on average, 37.5 total hours and 32.8 chairside hours per week, i.e. 87% of their time at the chairside. Excluding 1978 graduates, 79% of private practitioners anticipated working about the same time in 1979 as 1978, while 8.5% indicated more and 12.8% less hours in 1979.

General practitioners including patients treated as well, or separately, by their dental auxiliaries treated, on average, 83 patients per week. Clinical specialists treated, on average, 94 patients per week. The number of patient visits was related to age in a reverse "U" shape form; dentists under 30 years of age had about three-quarters as many total patient visits per week as those 35 to 40 years of age -- the group with the highest total patient visits (95/week). And dentists from 65 to 70 years of age had, on average, nearly two-thirds as many visits as this peak group.

The average number of operatories used in their main offices by general practitioners and clinical specialists was 1.9 and 2.2, respectively.

Using total hours of dental auxiliary employment as the most accurate basis for the calculation, the average general practitioner employed 2.02 auxiliaries and the average clinical specialist employed 2.54 auxiliaries. Three types of auxiliaries employed by private practitioners dominated in hours employed per week over all other auxiliary types. Non-certified dental assistants, secretary-receptionists and certified dental assistants worked, on average, 26, 18 and 16 hours per week, respectively, per private practitioner. Dental

hygienists, the fourth most commonly employed, worked, on average, 8 hours per week per private practitioner. Among general practitioners those in partnership employed more auxiliaries than those in shared cost practice, who in turn, employed more auxiliaries than solo practitioners. About 4% employ no auxiliaries.

Nearly 15% of all private practitioner respondents were seeking staff, mainly dental hygienists (27%), certified dental assistants (12.7%) and dentist associates (12.7%).

Practice activity was assessed by examining the length of patient wait for an appointment and whether new patients were being taken and new dentists were needed in the area, as well as the degree of practice busyness. A summary of these findings follows.

- The median wait time for an appointment was 10.7 days for general practitioners and 15.6 days for clinical specialists.
- About 92% of private practitioners were taking new patients and an identical percentage felt more dentists were not needed in their areas.
- About 59% of general practitioners felt they were as busy as they would like to be, while 9% felt they were busier and 32% less busy than they would like.
- Nearly one-half of the 1970-78 dental graduates were less busy than they liked, with 73% of 1978 graduates and 67% of 1977 and 1976 making such a claim.
- The Northeastern and Northwestern areas of Ontario displayed fewer less busy and more busier dentists than the other three planning areas of Ontario.
- The association between the dentists' perceived degree of busyness and patient appointment wait time was strong and positive; nearly 90% of the less busy dentists could have seen patients in 7 days or less, whereas these percentages for the two busier groups were much lower.
- Dentist busyness was also strongly related to patient visits such that less busy dentists had far fewer patient visits than their busier confreres; relative to the "as busy as like" group the "less busy" group had about 15 fewer patient visits per week overall, and just over 20 fewer patient visits per week for dentists under age 30.
- Dentists' perceptions of their degree of busyness, despite the subjectivity of the question and probable variable interpretations by respondents, seemed to be valid indicators of practice activity.

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INTRODUCTORY COMMENTS

This report on a survey of Ontario dentists conducted in late 1978 and early 1979 is part of a series of reports which examine the supply of dental manpower in Ontario. Other surveys of the principal, direct providers of dental care -- dental hygienists and denture therapists -- have been conducted. In each instance the demographic and work characteristics of these personnel as well as the distribution and organization of their practices, have been analyzed.

Because of the tremendous amount of potential information that analysis of the questionnaire to dentists presented, it was decided to publish the findings in two parts. In this first part, the descriptive findings about the survey itself, and Ontario dentists and their practices are given. Although these findings obviously have important implications for the current state of dental manpower in Ontario, the main analysis of the survey having direct applications to dental manpower will be found in a later, second publication of the analytical findings. In part two, the interrelationships among appropriate variables and regional differences will be examined more closely than they are in the present report which is more akin to the Surveys of Dental Practice last published by the Canadian Dental Association over a decade ago.

PURPOSES OF THIS REPORT

1. To describe the development and conduct of the questionnaire, and the response to it.
2. To describe Ontario dentists according to certain demographic and educational variables, and practice characteristics.
3. To describe Ontario dentists' practices according to their organizational, patient, work, equipment and staff characteristics, and their activity.

METHODS

Development of the Questionnaire

The questionnaire to dentists was developed by the staff of the Dental Health Care Services Research Unit* based on their assessment of needed information. This process included a review of previous surveys of dentists and advice obtained by the staff from two groups from the Ministry of Health, staff from both the Royal College of Dental Surgeons of Ontario and the Ontario Dental Association, and a group of Montreal researchers into the dental manpower situation in Quebec. Several questions of particular interest to the Ontario Dental Association were added as a courtesy to this organization. The initial draft of the questionnaire was then pre-tested on about 20 dentists and further changes in question items made as a result of their responses. Covering letters in support of the survey were solicited and received from the presidents of the Royal College of Dental Surgeons of Ontario and the Ontario Dental Association. The final draft of the questionnaire, its covering letters and the survey protocol were submitted to the human experimentation committee of the Office of Research Administration of the University of Toronto for approval. Upon receipt of this approval the questionnaire, appropriate mailing envelopes and two covering letters were printed in preparation for mailing (see Appendix 1).

Methods -- Questionnaire Distribution and Follow-up

The names and addresses of all individuals in the target population, all dentists licensed in Ontario in November 1978, were provided by the Royal College of Dental Surgeons of Ontario, drawn from their continually updated computer file of registered dentists. Two complete listings, current as of November 14, 1978, were initially obtained: one was used as the survey's "master list"; and the other as mailing labels. Two additional complete listings were obtained for follow-up reminders to dentists who had not responded to the initial questionnaire mailing; the first was updated to December 12, 1978 and the second, to January 4, 1979.

* M. Pierce, V.J. Sanders, J.W. Shosenberg, E. Wollis and D.W. Lewis

Of the 4,280 dentists included in the initial master list, 229 were excluded as they were located outside Ontario.* Each of the 4,051 dentists in the survey population was assigned a 4-digit serial number which was recorded on the master list and printed on each questionnaire form. The use of a numerical identification code was necessary to identify non-respondents for follow-up reminder mailings and to identify subsamples should in-depth interviews be desired at a later date. However, to ensure confidentiality, access to the master list was restricted to the research team. Completed questionnaires were date-stamped on receipt; the date of receipt along with any address change, change in registration status or mailing problems encountered were recorded on the master list.

The questionnaires were mailed to the 4,051 licensed dentists in Ontario on November 22, 1978. With the questionnaire form, each dentist was sent letters of endorsement of the survey from the presidents of the Ontario Dental Association and the Royal College of Dental Surgeons of Ontario, as well as a postage-paid, pre-addressed envelope for return of the completed questionnaire (see Appendix 1).

On December 14, 1978, follow-up letters were sent to the 1,456 dentists from whom a completed questionnaire had not yet been received as a reminder (see Appendix 1). Addresses for this mailing and the subsequent one were determined from the master list.

A second follow-up mailing was sent on January 12, 1979, to the 1,058 dentists from whom, according to the master list codings, a completed questionnaire had still not been received. Along with a reminder letter, the second follow-up mailing included a duplicate questionnaire form, a postage-prepaid return envelope, and articles about the Ontario Dental Manpower Study reproduced from the R.C.D.S Newsletter and the O.D.A.'s Ontario Dentist, both dated November 1978 (see Appendix 1).

* Non-resident dentists registered in Ontario: of the 229, 180 were in other Canadian provinces (B.C. - 15, Alberta - 8, Sask. - 3, Man. - 5, Quebec - 130, N.B. - 2, N.S. - 12, N.W.T. - 5) and 49 were outside Canada.

Analysis

Returned questionnaires were coded according to the specific format of the code book which had been previously developed. Four and, at times, five coders were utilized with one person who had extensive, previous coding experience acting as the coding supervisor to monitor the quality of the coding. The coded forms were then key-punched in preparation for editing. A small proportion of the punched cards were subjected to verification punching periodically; however, as the punching error rate determined from these periodic evaluations was very low, the verification procedure was not extended to all cards.

A computer program was written to edit the punched data cards so that each variable did not exceed its possible maximum range and the logical relationships among certain variables obtained. Data errors identified by the edit program were printed out for subsequent hand checking against the original forms and corrections made as required. The edited, so-called "clean" data were then stored in a file on a computer tape. Using the SPSS language, certain raw variables were re-coded and stored along with the raw variables taken directly from the questionnaire. Examples of re-codes included the combination of days worked per week with weeks worked per year to give a new, re-coded variable, days worked per year and the conversion of birthdate to age which was then further re-coded into specified age group variables. Finally, the data summary features of SPSS were used to tabulate means, one-way frequency distributions and various cross-tabulations.

Caveats

Despite, as described later, the very high response to the questionnaire which adds validity to the findings, the total representativeness of the survey findings for all dentists cannot be guaranteed. Also, because of the wording of different questions, the unit of analysis for some sections of the questionnaire is the dentist and for others, the practice. This created some difficulties in the analysis, for example, the total number of days worked by the dentist each week can be identified but for dentists with more than one practice (office), the number of days worked in each office cannot. Also, for dentists practising with other dentists and sharing dental auxiliary staff, the stated number of "shared" auxiliaries but, fortunately, not the number of hours worked by the auxiliary may be slightly overstated. These difficulties, and others, are recognized in the analysis.

RESPONSE

Survey Response

Of the 4,051 dentists to whom questionnaires were mailed, 58 were later discovered not to meet the survey criteria, i.e., they were no longer licensed in Ontario and/or they had left the province.* Thus, a reduced survey target population of 3,993 dentists was obtained. Inevitably, some letters were returned as undeliverable by the post office, in which case an attempt was made to locate an alternate address for these individuals. Twenty-two such letters were returned: of these, responses were eventually received from ten, six were found to have left the province or retired (and thus are included among the 58 excluded dentists mentioned above), and only 6 were definitely never reached by mail.

The "reachable-by-mail" survey population thus totalled 3,987 dentists (3,993-6). Completed questionnaires were received from 3,420.** No response was received from 567 dentists. The 3,420 useable returns represent a response rate of 85.65% of the reduced survey population and 85.78% of the "reachable-by-mail" population.

The first completed questionnaires were returned on November 24, two days after mailing. The last return to be accepted was received April 30, 1979. Fifty-six percent of the total survey population had returned their completed questionnaires within 2 weeks.

* These individuals were identified on the basis of address changes and deletions from the membership list of the R.C.D.S. Source: Royal College of Dental Surgeons of Ontario, "Change of Register" notices for January, February, March and April 1979. (Although a dentist may have retired or left Ontario at any point during 1978, the licence remains in force through to the end of the year. Thus, notice of changes in registration status often are not available until the early months of the following year.) Of the 58 dentists comprising this group, 17 had retired, 25 had left Ontario, and 16 had allowed their licences to expire for unknown reasons.

** Five completed questionnaires were received with serial numbers removed: these were not counted in any of the above categories, nor were they coded or included in the survey data base.

At the time that the first follow-up reminders were mailed, approximately three weeks after the original mailing, 63.6% of the reduced survey population of 3,993 dentists had returned their completed questionnaires. By the time of the second follow-up, one month later, an additional 9.4% had returned their completed questionnaires. One month after the mailing of the second follow-up, completed forms had been received from another 10.6%. Whether or not the two follow-ups were responsible for increasing the total response by approximately 10% each time is debatable in the absence of a control procedure, although Figure 1 shows a definite increase in response rate subsequent to each follow-up mailing.

Non-respondents

The 86% response obtained in this survey suggests that the sample is probably quite representative of all dentists in Ontario. However, the availability of a few, basically demographic items, on all Ontario dentists made it possible to compare non-respondents to respondents in terms of sex, year of graduation, specialty certification, geographic location (county and town or city) and community population size. Non-respondents were identified from the master list and compared to respondents.

The sex of non-respondents was determined on the basis of each dentist's given name as shown on the master list. Those cases having given names which were ambiguous as to gender were excluded from the comparison. Table 1 indicates that just over 6% more males than females responded to this survey.

Each dentist's year of graduation from dental school is published in the Royal College of Dental Surgeons of Ontario Membership List. The number of respondents and non-respondents who graduated in each decade since 1900 is shown in Table 2. It is apparent that early graduates had the lowest response but their numbers are small. Graduates from 1930 on had a very similar response rate, with those graduating from 1970 to 1978 having the highest, 89%.

FIGURE 1: RESPONSE RATE OF DENTISTS OVER TIME

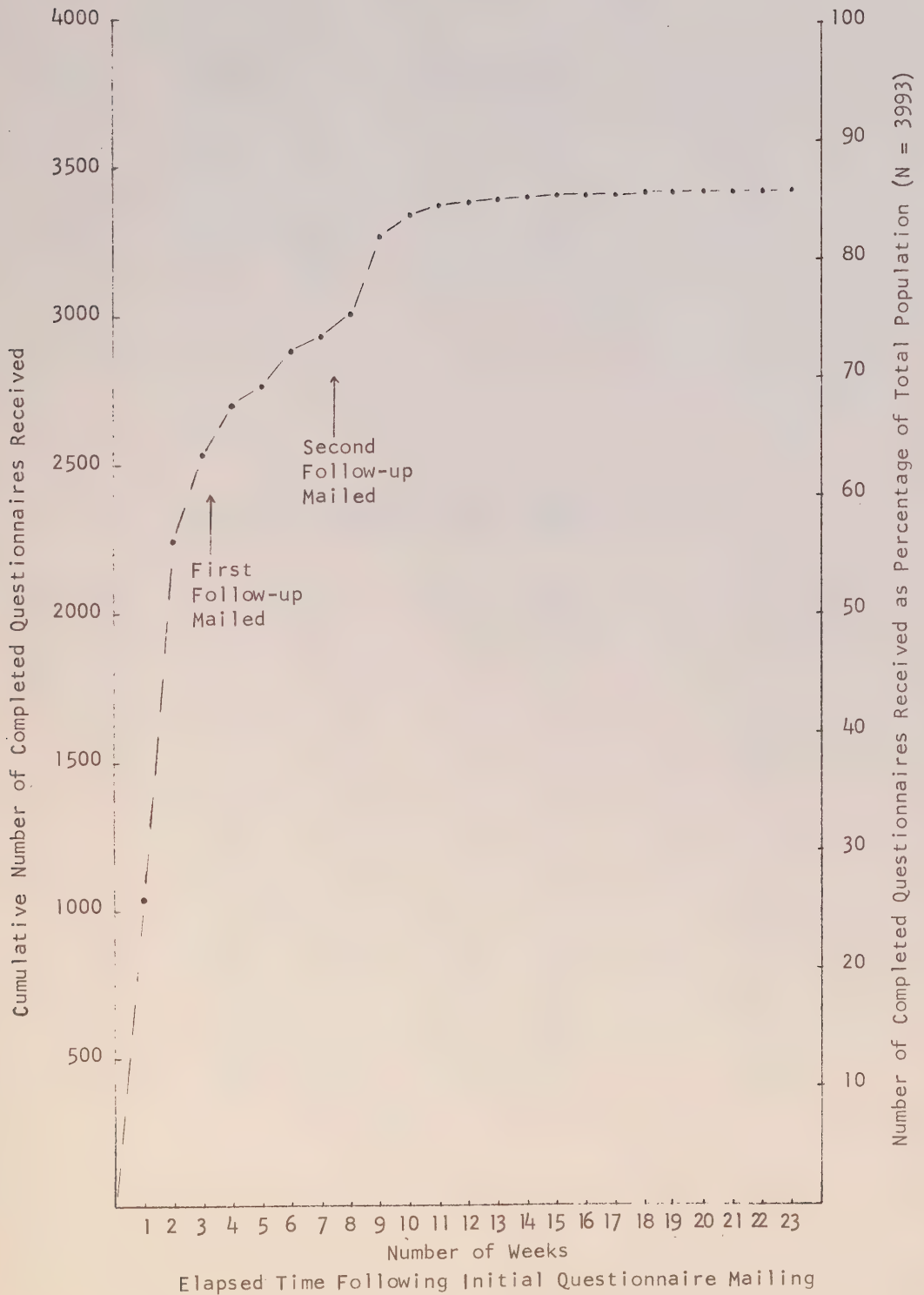


TABLE 1

COMPARISON OF SURVEY RESPONSE BY SEX

Sex	Respondents		Non-Respondents		Response Rate %
	N	%	N	%	
Male	3125	94.8	491	91.9	86.4
Female	172	5.2	43	8.1	80.0
Totals	3297	100.0	534	100.0	86.1

TABLE 2

COMPARISON OF SURVEY RESPONSE
BY YEAR OF GRADUATION FROM DENTAL SCHOOL

Decade of Graduation	Respondents		Non-Respondents		Response Rate %
	N	%	N	%	
1900-1909	3	0.1	1	0.2	75.0
1910-1919	11	0.3	13	2.3	45.8
1920-1929	44	1.3	11	2.0	80.0
1930-1939	101	3.0	18	3.2	84.9
1940-1949	276	8.1	54	9.6	83.6
1950-1959	717	21.0	143	25.4	83.4
1960-1969	965	28.3	162	28.8	85.6
1970-1978	1291	37.9	160	28.5	89.0
All Years	3408	100.0	562	100.0	85.8

The Royal College of Dental Surgeons of Ontario Membership List includes the names and addresses of certified specialists. However, virtually no differences were found between respondents and non-respondents in terms of their specialty status (Table 3).

The geographical locations of non-respondents were determined from their master list addresses and these were then coded for county, town or city, and community population size. The distribution of respondents and non-respondents for these characteristics appears in Appendix 2 and Tables 4 and 5. Grouping the counties (or regional municipalities or districts) into the five regional planning areas of the province (see Figure 2) as in Table 4 shows that the survey response was high and very similar for dentists in four of the five regional planning areas. The Central region's response rate was markedly below those of the other four regions (83.2%). As seen in Appendix 2 , the relatively lower Central regional planning area response is biased downward because of the influence of the 80.1% response in Metropolitan Toronto, a not uncommon occurrence one is told, anecdotally.

As found in Appendix 2 within the Northwestern, Southwestern and Central regions, the highest response rates were found in the counties or districts with the smallest number of dentists and conversely, the lowest response rates were from counties or districts with more dentists. The Northwestern region, however, had the opposite experience to that just described for the three regions. The experience of the Eastern region in this regard was mixed.

The response by community population size (Table 5) indicates that the lowest response was from communities with the largest population, (those that had 250,000 people or more). The highest response (91.5%) was from communities with a population of 5,000 to 9,999.

TABLE 3

COMPARISON OF SURVEY RESPONSE
BY DENTAL SPECIALIZATION STATUS

Certified Specialist Status	Respondents		Non-Respondents		Response Rate %
	N	%	N	%	
Non-Specialists	2960	88.9	500	89.0	85.5
Specialists	369	11.1	62	11.0	85.6
Totals	3329	100.0	562	100.0	85.5

TABLE 4

COMPARISON OF SURVEY RESPONSE
BY REGIONAL PLANNING AREA

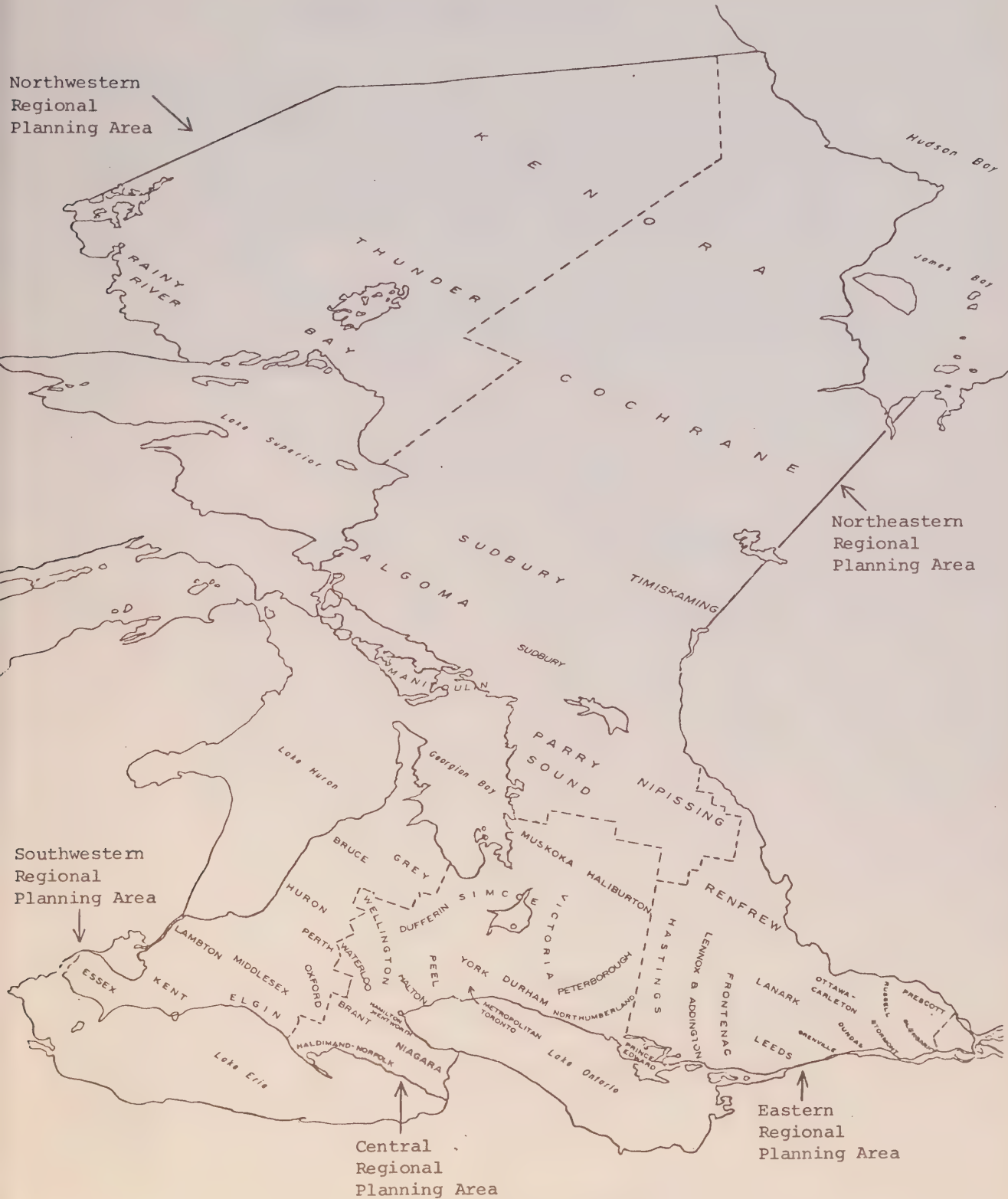
Regional Planning Area	Respondents		Non-Respondents		Response Rate %
	N	%	N	%	
Eastern	433	13.2	58	10.2	88.2
Central	2131	65.0	429	75.7	83.2
Southwestern	475	14.5	53	9.3	90.0
Northwestern	75	2.3	8	1.4	90.4
Northeastern	163	5.0	19	3.4	89.6
Ontario Total	3277	100.0	567	100.0	85.3

TABLE 5

COMPARISON OF SURVEY RESPONSE
BY COMMUNITY POPULATION SIZE

Community Population	Respondents		Non-Respondents		Response Rate %
	N	%	N	%	
250,000+	1433	43.7	352	62.1	80.3
100,000- 249,999	603	18.4	69	12.2	89.7
50,000- 99,999	431	13.2	60	10.5	87.8
25,000- 49,999	238	7.3	25	4.4	90.5
10,000- 24,999	217	6.6	23	4.1	90.4
5,000- 9,999	150	4.6	14	2.5	91.5
<5,000	205	6.2	24	4.2	89.5
Total	3277	100.0	567	100.0	85.3

FIGURE 2: ONTARIO'S FIVE REGIONAL PLANNING AREAS



PROFILE OF ONTARIO DENTISTS*

Age, Sex, Birthplace

The mean age of all respondents was 41.8 years (Table 6). It was slightly lower for the full- or part-time private practitioners, 41.3 years. About 39% of dentists are under 35 years of age while just 8% to 9% are over 60 (Table 6). As Table 7 demonstrates, 95% of Ontario's dentists are male.

About 65% indicated Ontario as their birthplace (Table 8). About 12% to 13% were born in other parts of Canada, followed by Europe (10%) and the United Kingdom (about 4%).

TABLE 6

AGE DISTRIBUTION AND MEAN AGE OF RESPONDENTS

All Respondents			Full- or Part-time Private Practitioners		
Age (Years)	Frequency	Relative Percent	Age (Years)	Frequency	Relative Percent
30 or under	561	16.5	30 or under	521	16.5
30.5 - 34.5	741	21.8	30.5 - 34.5	714	22.6
35.5 - 39.5	544	16.0	35.5 - 39.5	516	16.3
40.5 - 49.5	678	19.9	40.5 - 49.5	646	20.5
50.5 - 59.5	561	16.5	50.5 - 59.5	504	16.0
60.5 - 97.5	316	9.3	60.5 - 97.5	256	8.1
	3,401	100.0		3,157	100.0
$\bar{X}$ (S.D.)=41.8 (12.5) Median=38.4			$\bar{X}$ (S.D.)=41.3 (11.9) Median=38.0		

* In this section of the report all respondents and full- or part-time private practitioners are usually treated separately. Ninety-seven percent of the full- or part-time private practitioners included the following areas of dentistry: general practice; orthodontics; oral pathology; oral surgery; paedodontics; periodontics; endodontics; prosthodontics; and radiology. There were 3420 "all respondents" and 3171 full- or part-time private practitioners with the latter group being, of course, a sub-set of the former.

TABLE 7

SEX OF RESPONDENTS

All Respondents			Full- or Part-Time Private Practitioners		
<u>Sex</u>	<u>Frequency</u>	<u>Relative Percent</u>	<u>Sex</u>	<u>Frequency</u>	<u>Relative Percent</u>
Male	3,125	94.8	Male	2,918	95.3
Female	172	5.2	Female	144	4.7
	3,297	100.0		3,062	100.0

TABLE 8

BIRTHPLACE OF RESPONDENTS

All Respondents			Full- or Part-Time Private Practitioners		
<u>Birthplace</u>	<u>Frequency</u>	<u>Relative Percent</u>	<u>Birthplace</u>	<u>Frequency</u>	<u>Relative Percent</u>
Ontario	2,195	64.9	Ontario	2,062	65.6
Canada (Other)	436	12.9	Canada (Other)	390	12.4
U.S.	62	1.8	U.S.	57	1.8
U.K.	134	4.0	U.K.	114	3.6
Europe	334	9.9	Europe	312	9.9
Other	222	6.6	Other	207	6.6
	3,383	100.0		3,142	100.0

Year and School of Dental Graduation

About 38% of both groups graduated recently, between 1970 and 1978 (Table 9). The number graduating in each period prior to 1970 decreased steadily, with about 12% to 13% graduating prior to 1950 and just 4% to 5% prior to 1940. The mean year of graduation was 1963 and the median, 1966.

TABLE 9

YEAR OF GRADUATION OF RESPONDENTS					
All Respondents			Full- or Part-Time Private Practitioners		
Year	Frequency	Relative Percent	Year	Frequency	Relative Percent
1908-1929	58	1.7	1908-1929	38	1.2
1930-1939	101	3.0	1930-1939	84	2.7
1940-1949	276	8.1	1940-1949	244	7.7
1950-1959	717	21.0	1950-1959	660	20.9
1960-1969	965	28.3	1960-1969	914	28.9
1970-1978	1,291	37.9	1970-1978	1,224	38.7
	3,408	100.0		3,164	100.0

$\bar{X}(s.d.) = 1963 (12.2)$ Median = 1966 $\bar{X}(s.d.) = 1963 (11.6)$ Median = 1966

As seen in Table 10, just over 77% graduated from the University of Toronto and 8% from the University of Western Ontario. About 9% graduated from other Canadian faculties and 2.5% from universities in the United States. Foreign universities outside North America accounted for the remaining 3% of graduates.

The mean age at dental graduation for all of the respondents was 26.2 years with a median age of 25.2 years.

TABLE 10

SCHOOL OF GRADUATION OF RESPONDENTS

All Respondents			Full- or Part-Time Private Practitioners		
<u>School</u>	<u>Frequency</u>	<u>Relative Percent</u>	<u>School</u>	<u>Frequency</u>	<u>Relative Percent</u>
University of Toronto	2,625	77.1	University of Toronto	2,451	77.5
University of Western Ontario	274	8.0	University of Western Ontario	252	8.0
Other Cdn. Universities	316	9.3	Other Cdn. Universities	287	9.1
U.S. Universities	82	2.4	U.S. Universities	78	2.5
U.K. Universities	49	1.4	U.K. Universities	42	1.3
Other Foreign Universities	59	1.7	Other Foreign Universities	53	1.7
	3,405	100.0		3,163	100.0

Office Location and Community Size

The distribution of the location of the main office of respondents is indicated in Table 11 according to Ontario's five Regional Planning Areas (see Figure 2). About two-thirds of Ontario's dentists are located in the large Central Area. As found in Appendix 3, nearly one-half of the dentists in the Central Area are located in Metropolitan Toronto. Because each regional planning area is so large, the distribution of respondents in each county, district or regional municipality within each regional planning area is listed in Appendix 3. As with the Central Area, the number of dentists in each of the other areas is dominated by one or two urban, highly-populated sub-areas, for example, nearly 57% of dentists in the Eastern Area are in Ottawa-Carleton. The Southwestern Area is dominated by Essex (about 24%) and Middlesex (34% to 37%), and the Northwestern Area by Sudbury (32%), and the Northwestern Area by Thunder Bay (71% to 74%). (The relative distributions of dentists and population in each part of each Regional Planning Area in 1978 was discussed in a previous report.*)

TABLE 11

LOCATION OF MAIN OFFICE OF PRACTICE BY REGIONAL PLANNING AREA

All Respondents			Full- Or Part-Time Private Practitioners		
Region	Frequency	Relative Percent	Region	Frequency	Relative Percent
Central	2,132	65.1	Central	2,033	66.0
Eastern	432	13.2	Eastern	397	12.9
Southwestern	475	14.5	Southwestern	432	14.0
Northeastern	163	5.0	Northeastern	148	4.8
Northwestern	75	2.3	Northwestern	69	2.2
	3,277	100.0		3,079	100.0

* Historical Trends in the Supply of Dentists and Dental Hygienists in Ontario. Dental Manpower Report No. 2 (DM 381). June 1979.

The location of the main office of respondents according to community size is seen in Table 12. Just over 43% were located in large communities of 250,000 persons or more, while between 10% and 11% were in places under 10,000 in size.

TABLE 12

LOCATION OF MAIN OFFICE OF PRACTICE
BY POPULATION

All Respondents			Full- or Part-Time Private Practitioners		
Community Size	Frequency	Relative Percent	Community Size	Frequency	Relative Percent
250,000 +	1,432	43.7	250,000+	1,336	43.4
100,000 - 249,999	604	18.4	100,000 - 249,999	561	18.2
50,000 - 99,999	431	13.2	50,000 - 99,999	418	13.6
25,000 - 49,999	238	7.3	25,000 - 49,999	232	7.5
10,000 - 24,999	217	6.6	10,000 - 24,999	206	6.7
5,000 - 9,999	150	4.6	5,000 - 9,999	141	4.6
<5,000	205	6.3	<5,000	185	6.0
	3,277	100.0		3,079	100.0

Although only about 17% of dentists indicated that they had a second dental office and 1.9% a third one, the change of location among main, second and third offices is of interest. Office location shifts among the large regional planning areas were minimal in all areas. Of the 559 private practitioners reporting a second office, just 14 second offices (2.5%) were located outside the regional planning area of the main office. Of the 59 dentists reporting a third office location, just two "third" offices were located outside the planning area of the second office. Even though the vast majority of second and third offices are located within the same area, regional planning areas, as indicated in Figure 2, are very large so that there could, in theory, be a large distance between offices in any given regional planning area. In practice, it is unlikely that this occurs.

Community size differences among the main, second and third dental offices should be more sensitive than regional planning areas as a measure to demonstrate the actual movement of locations (although distance still cannot be determined). As Tables 13 and 14 show, this is true. For example, when examining community size differences between the main and second offices (Table 13), 91% of dentists having a main office in a city of 250,000 population or more have their second office in a city of similar size (and possibly the same city). However, for those having their main office in smaller communities, there is a marked tendency for the second office to be located in a larger community. For those with main offices in communities between 100,000 and 249,999 population, 54% have their second offices in the same community or one of similar size but 34% are located in the largest population category, 250,000 and over. Similarly with the next two smallest community sizes (50,000 to 99,999 and 25,000 to 49,999) from 43% to 45% of the second offices are in the 250,000 plus centers. For the three smallest population categories for the main office, about 45% of the second offices were in places of 100,000 population or more.

The three smallest population categories also demonstrate second office location shifts to the smaller centers. For example, 4 out of the 11 (36%) with main offices in communities 5,000 to 9,999 in size and 5 out of the 22 (22%) with main offices in communities from 10,000 to 24,999, have their second offices in smaller communities than their main offices. As Table 14 shows, 47 of the 59 dentists with third offices have their second offices in the largest urban centers over 250,000 population. Nearly all (52/59) of the third offices are located in cities of 100,000 population or more.

Principal Areas of Dental Activity and Certified Specialty Status

For both groups their principal areas of dental activity are demonstrated in Table 15. Just over 81% of all respondents and 86% of private practitioners indicated general practice as their main activity. About 6% of all respondents and almost 3% of private practitioners did not give a practice as their main activity but rather research, teaching, post-graduate work, internship, etc. Thirty-three or nearly 1% of all respondents were retired.

TABLE 13

COMPARISON OF THE MAIN AND SECOND OFFICES BY COMMUNITY POPULATION

Community Population of Main Office	Community Population of Second Office							Row Total N	Row Total %
	250,000+	100,000- 249,999	50,000- 99,999	25,000- 49,999	10,000- 24,999	5,000- 9,999	<5,000		
250,000+	297 90.8	9 2.8	6 1.8	4 1.2	2 0.6	2 0.6	7 2.1	327	58.5
100,000- 249,999	34 33.7	55 54.5	0 0.0	5 5.0	2 2.0	0 0.0	5 5.0	101	18.1
50,000- 99,999	23 43.4	4 7.5	16 30.2	1 1.9	0 0.0	1 1.9	8 15.1	53	9.5
25,000- 49,999	9 45.0	6 30.0	3 15.0	1 5.0	0 0.0	0 0.0	1 5.0	20	3.6
10,000- 24,999	7 31.8	3 13.6	0 0.0	1 4.5	6 27.3	1 4.5	4 18.2	22	3.9
5,000- 9,999	1 9.1	4 36.4	0 0.0	0 0.0	1 9.1	1 9.1	4 36.4	11	2.0
< 5,000	7 28.0	4 16.0	2 8.0	3 12.0	0 0.0	3 12.0	6 24.0	25	4.5
Column Total N	378	85	27	15	11	8	35	559	
Column Total %	67.6	15.2	4.8	2.7	2.0	1.4	6.3		100.0

TABLE 14

COMPARISON OF THE SECOND AND THIRD OFFICES BY COMMUNITY POPULATION

Community Population of Second Office	Community Population of Third Office							Row Total N	Row Total %
	250,000+	100,000- 249,999	50,000- 99,999	25,000- 49,999	10,000- 24,999	5,000- 9,999	<5,000		
250,000+	41 87.2	3 6.4	1 2.1	1 2.1	0 0.0	0 0.0	1 2.1	47	79.7
100,000- 249,999	4 66.7	2 33.3	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	6	10.2
50,000- 99,999	1 100.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1	1.7
25,000- 49,999	1 33.3	0 0.0	0 0.0	1 33.3	1 33.3	0 0.0	0 0.0	3	5.1
10,000- 24,999	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 100.0	1	1.7
5,000- 9,999	0 0.0	0 0.0	0 0.0	0 0.0	1 100.0	0 0.0	0 0.0	1	1.7
< 5,000	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0	0.0
Column Total N	47	5	1	2	2	0	2	59	
Column Total %	79.7	8.5	1.7	3.4	3.4	0.0	3.4		100.0

TABLE 15

PRINCIPAL AREA OF ACTIVITY OF RESPONDENTS

All Respondents			Full- or Part-Time Private Practitioners		
Principal Area of Activity	Frequency	Relative Percent	Principal Area of Activity	Frequency	Relative Percent
General Practice	2,793	81.8	General Practice	2,730	86.2
Orthodontics	122	3.6	Orthodontics	120	3.8
Oral Pathology	6	0.2	Oral Pathology	3	0.1
Oral Surgery	67	2.0	Oral Surgery	63	2.0
Paedodontics	51	1.5	Paedodontics	40	1.3
Periodontics	72	2.1	Periodontics	70	2.2
Endodontics	26	0.8	Endodontics	26	0.8
Prosthodontics	35	1.0	Prosthodontics	33	1.0
Radiology	2	0.1	Radiology	1	0.0
Public Health	43	1.3	Public Health	4	0.1
Academic/ Teaching/ Research	77	2.3	Academic/ Teaching/ Research	40	1.3
Postgraduate Studies	27	0.8	Postgraduate Studies	14	0.4
Internship	12	0.4	Internship	3	0.1
Retired	33	1.0	Retired	0	0.0
Other	47	1.4	Other	21	0.7
	3,413	100.0		3,168	100.0

Just over ten percent (10.8% of all respondents and 10.2% of private practitioners) were certified provincial specialists. Within this group of dentists over one-half were orthodontists and oral surgeons (see Table 16), with 35%-38% being orthodontists and 18% being oral surgeons. Periodontics (14%-15%) is the third largest specialty, with all others less than 10%. Oral pathology and radiology display the smallest numbers of specialists.

TABLE 16

SPECIALTY AREA OF CERTIFIED SPECIALIST DENTISTS					
All Respondents			Full- or Part-Time Private Practitioners		
Specialty Area	Frequency	Relative Percent	Specialty Area	Frequency	Relative Percent
Orthodontics	130	35.2	Orthodontics	124	38.2
Oral Pathology	8	2.2	Oral Pathology	5	1.5
Oral Surgery	65	17.6	Oral Surgery	59	18.2
Paedodontics	33	8.9	Paedodontics	31	9.5
Periodontics	51	13.8	Periodontics	49	15.1
Endodontics	22	6.0	Endodontics	22	6.8
Prosthodontics	26	7.0	Prosthodontics	25	7.7
Radiology	3	0.8	Radiology	3	0.9
Public Health	30	8.1	Public Health	6	1.8
Other	1	0.3	Other	1	0.3
	369	100.0		325	100.0

Since a dentist may be engaged in a principal area of activity without being a certified specialist, the relationship between these two practice characteristics was examined. Table 17 demonstrates that of those who claimed orthodontics, oral pathology, oral surgery and endodontics as the discipline of their principal area of activity, 98%, 83%, 88% and 77%, respectively, were certified specialists. Dentists who claimed paedodontics, periodontics, prosthodontics and public health as their main activity areas were found to be certified specialists in 59%, 55%, 49% and 37% of cases, respectively. Thus,

TABLE 17
PRINCIPAL AREA OF ACTIVITY BY SPECIALTY AREA

Principal Area of Activity	Specialty Area											Row Total %
	Orthodontics	Oral Pathology	Oral Surgery	Paedodontics	Periodontics	Endodontics	Prosthodontics	Radiology	Public Health	Other	Non Specialist	Row Total N
General Practice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	99.7	2,720
Orthodontics	98.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	122
Oral Pathology	0.0	83.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	6
Oral Surgery	0.0	0.0	88.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9	67
Paedodontics	0.0	0.0	0.0	58.8	0.0	0.0	0.0	0.0	0.0	0.0	41.2	51
Periodontics	0.0	0.0	0.0	0.0	54.9	0.0	0.0	0.0	0.0	0.0	45.1	71
Endodontics	0.0	0.0	0.0	0.0	0.0	76.9	0.0	0.0	0.0	0.0	23.1	26
Prosthodontics	0.0	0.0	0.0	0.0	0.0	0.0	48.6	0.0	0.0	0.0	48.6	35
Radiology	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	1
Public Health	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.2	0.0	62.8	43
Academic	6.6	2.6	6.6	3.9	14.5	1.3	10.5	1.3	7.9	0.0	44.7	76
Postgraduate	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.0	25
Internship	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	12
Retired	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.2	26
Other	6.8	2.3	2.3	0.0	2.3	0.0	0.0	0.0	6.8	0.0	79.5	44
Column Total N	130	8	65	33	51	22	26	3	30	1	2,956	3,325*
Column Total %	3.9	0.2	2.0	1.0	1.5	0.7	0.8	0.1	0.9	0.0	88.9	100.0

* All respondents

just about one-half who mainly practise these latter disciplines are certified specialists. Nearly 55% of the 76 dentists who classified themselves primarily as academics were certified specialists; this group, as might be expected, was represented across all specialties.

Other Areas of Activity in Dentistry

Approximately 18% of all respondents and private practitioners had another area of activity in dentistry in addition to the principal area mentioned above (Table 18). Among these dentists, just over 35% of all respondents and 37% of private practitioners indicated a faculty of dentistry school as their first other area of activity. The next largest group was related to committee work, research or internship, constituting about 19% of the dentists with another stated activity area (Table 18).

Approximately 89% of all respondents and private practitioners who indicated another area of activity in dentistry also noted the number of hours per week and the number of weeks per year spent at this activity. The average number of hours per week was found to be just under seven hours for both groups. The maximum number of hours spent per week at this activity varied, however, from 53 hours for all respondents to 38 hours for private practitioners. The average number of weeks spent per year at this activity was found to be just over 32 weeks with the maximum being every week in the year.

Anticipated Retirement Age

As seen in Table 19 the estimated mean age of retirement by those answering this question (about 75% responded) was 61 years, with a median age of 60 years. Just over 8% indicated a retirement age of 50 years of age or less and about 4% said over 70 years. There were many verbal comments added by respondents regarding retirement.

TABLE 18

FIRST OTHER AREA OF ACTIVITY IN DENTISTRY*

All Respondents			Full- or Part-Time Private Practitioners		
Other Areas of Activity	Frequency	Relative Percent	Other Areas of Activity	Frequency	Relative Percent
Consultant	39	6.2	Consultant	33	5.6
School clinic	47	7.5	School clinic	42	7.1
Faculty of Dentistry school	224	35.6	Faculty of Dentistry school	220	37.0
Colleges of Applied Arts & Technology	60	9.5	Colleges of Applied Arts & Technology	60	9.9
Hospital clinic	60	9.5	Hospital clinic	56	9.4
Unspecified instructor	75	11.9	Unspecified instructor	71	12.0
Other (i.e., committee research, intern)	125	19.8	Other (i.e., committee, research, intern)	113	19.0
	630	100.0		594	100.0

* 39 dentists also reported a second other area of activity in dentistry.

TABLE 19

AGE OF RETIREMENT ESTIMATED BY DENTISTS

All Respondents			Full- or Part-Time Private Practitioners		
Age (in years)	Frequency	Relative Percent	Age (in years)	Frequency	Relative Percent
Under 51	216	8.6	Under 51	211	8.7
51-60	1,153	45.7	51-60	1,101	45.5
61-70	1,046	41.5	61-70	1,001	41.4
Over 70	107	4.2	Over 70	104	4.3
	2,522	99.9		2,417	99.9

$\bar{X}$ (s.d.) = 61.2(6.9) Median = 60.3

$\bar{X}$ (s.d.) = 61.2(7.0) Median = 60.2

PROFILE OF ONTARIO PRIVATE DENTAL PRACTICES

This section describes the activity and organizational structure, and the patient, work, equipment and staff characteristics of the dental practice (or dental practices combined, for those with more than one) of the 3171 responding dentists in full- or part-time private practice. Data are usually presented for all private practitioners and two sub-groups of private practitioners -- general practitioners and clinical specialists (defined as those whose principal area of activity is orthodontics, oral surgery, paedodontics, periodontics, endodontics or prosthodontics). As described previously, about 80% of these clinical specialists are certified specialists.

ORGANIZATION

Type of Private Practice

Table 20 indicates that about 60% of general practitioners had solo practices. The next most popular general practice arrangement involved cost-sharing (18%), followed by associate practice (14%). About 5% of general practices and 10% of clinical specialty practices were classified as partnerships.

TABLE 20

TYPE OF PRIVATE PRACTICE

Type of Practice	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
Solo	1897	59.8	1651	60.5	219	62.2
Partner	185	5.8	145	5.3	35	9.9
Cost Sharing	565	17.8	492	18.0	50	14.2
Associate	448	14.1	380	13.9	40	11.4
Other Private Practice	76	2.4	62	2.3	8	2.3
Totals	3171	99.9	2730	100.0	352	100.0

Number of Other Dentists in Practice

Since about 40% of the dental practices of respondents had more than one dentist (i.e. non-solo), it was of interest to examine the number of dentists within the combined forms of practice. Table 21 shows that 1.6 to 1.7 other dentists, or about 2.7 dentists altogether, were involved, on average, in such practices. About two-thirds of the general, and 59% of the specialty practices had two dentists (one "other" plus the respondent). As compared to general practices, the specialty practices had more three- or four-dentist practices (38% vs. 26%) but fewer with more than five dentists (3.2% vs. 6.2%).

TABLE 21

NUMBER OF OTHER DENTISTS IN PRACTICE

Number of Other Dentists	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
1	746	65.4	647	67.4	74	58.7
2	209	18.3	172	17.9	28	22.2
3	106	9.3	81	8.4	20	15.9
4	27	2.4	23	2.4	1	0.8
5	29	2.5	23	2.4	2	1.6
6+	23	2.0	14	1.4	1	0.8
Totals	1140	99.9	960	99.9	126	100.0
	$\bar{x}(s.d.)=1.7 (1.3)$ Median =1.3		$\bar{x}(s.d.)=1.6 (1.2)$ Median =1.2		$\bar{x}(s.d.)=1.7 (1.0)$ Median =1.3	

Management Company and Practice Incorporation

About 40% of the general practitioners and 54% of clinical specialists operated their practices under a management company (Table 22).

Although at the time of this survey federal government action was making practice incorporation problematical, private dental practitioners strongly favoured practice incorporation (Table 23). Just over three-quarters of those in general practice and 84% of those in specialty practice indicated they would incorporate their practices if allowed to by law. There were many written comments added by respondents about incorporation, and, particularly, the government's attitude towards it.

TABLE 22

MANAGEMENT COMPANY

Have Management Company?	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
Yes	1288	41.0	1086	40.1	187	53.6
No	1857	59.0	1622	59.9	162	46.4
Totals	3145	100.0	2708	100.0	349	100.0

TABLE 23

PRACTICE INCORPORATION

Would Incorporate Practice?	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
Yes	2282	76.5	1961	76.3	280	83.8
No	702	23.5	609	23.7	54	16.2
Totals	2984	100.0	2570	100.0	334	100.0

Recall System

Few general practitioners (4.5%) but many more clinical specialists (24%) did not operate a routine recall system (Table 24). Understandably, because of their patients' needs, most specialty practices (47.5%) utilized individual assessment as the principal criterion for recall time; nearly one-third of private practices used this same method. About 59% of general practices and 23% of specialty practices routinely used six-month recalls. As contained in the "other" category, very few practices were organized on a basis of three, nine or twelve month recall appointments (about 0.1%, 1.8% and 1.6%, respectively).

TABLE 24

ROUTINE RECALL SYSTEM

Routine Recall Systems	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
6 months	1723	54.8	1609	59.2	80	23.3
Individually Assessed	1072	34.1	877	32.3	163	47.5
Other	128	4.1	107	3.9	18	5.2
No Recall	219	7.0	123	4.5	82	23.9
Totals	3142	100.0	2716	99.9	343	99.9

Salaried Employment

Seven percent of private practitioners (4.7% in general dentistry and 15.3% in specialty dentistry) indicated that they also treated patients in salaried positions. Most of the general practitioners with some salaried employment worked for one of the levels of government (44% - municipal, provincial, federal) and many (35%) worked in dental schools as demonstrators, for example. Most of those principally engaged in a clinical specialty worked for a dental school (48%) or a hospital (35%) (see Table 25).

TABLE 25

TYPE OF SALARIED EMPLOYMENT

Type of Salaried Employment	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
Hospital	48	21.3	20	15.6	19	35.2
Dental School	100	44.4	45	35.2	26	48.1
Government Employment	65	28.9	56	43.8	5	9.3
Other	12	5.3	7	5.5	4	7.4
Totals	225	99.9	128	100.1	54	100.0

OFFICE WORK CHARACTERISTICS AND PATIENT VISITS

As indicated previously, office time worked is the aggregate of dentists' hours in all offices. As "patients" and "patient visits" are used interchangeably in the text, it must be understood that "patients" do not necessarily refer to different people. General practitioners would probably have about one-half the numbers given here as different patients.

Hours, Days and Weeks Worked

During 1978 private practitioners worked an average of just over 45 weeks (Table 26). Twelve percent of general practitioners and 8.6% of clinical specialists worked less than 42 weeks in 1978, while about 10% of each group worked 50 weeks or more. One-half of each group as seen in Table 26 worked more than 47 weeks during 1978 (medians 47.0 and 47.1 weeks). It should be noted that Table 26 included 1978 graduates, the majority of whom (93%) worked less than 42 weeks during 1978. This latter group, however, represents just 33% and 37% of the total number of private practitioners and general practitioners, respectively, working less than 42 weeks.

TABLE 26

NUMBER OF WEEKS WORKED IN 1978

Number of Weeks	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
6-41	380	12.3	327	12.2	29	8.6
42-45	572	18.4	486	18.2	72	20.9
46-47	770	24.7	671	25.1	86	24.9
48-49	1075	34.5	932	34.8	121	35.0
50-52	316	10.2	266	10.0	37	10.8
Totals	3113	100.1	2682	100.3	345	100.2
	$\bar{x}$ (s.d.)=45.4 (5.9) Median =47.0		$\bar{x}$ (s.d.)=45.4 (5.7) Median = 47.0		$\bar{x}$ (s.d.)=45.8 (5.5) Median =47.1	

Dentists in general practice work, on average, 4.6 days per week and one-half of them work more than 4.9 days (Table 27). Those emphasizing a clinical specialty practise a slightly lower average number of days per week (4.4).

TABLE 27

NUMBER OF DAYS WORKED PER WEEK BY DENTIST

Number of Days	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
0.5-3.9	204	6.3	112	4.0	34	9.8
4.0-4.9	1416	45.0	1229	45.4	176	50.4
5.0-7.0	1519	48.4	1362	50.4	139	39.9
Totals	3139	99.7	2703	99.8	349	100.1
	$\bar{x}(s.d.)=4.6$ (0.8) Median =4.5		$\bar{x}(s.d.)=4.6$ (0.6) Median =4.9		$\bar{x}(s.d.)=4.4$ (0.8) Median =4.5	

The total hours worked by private practitioners and their chairside hours are given in Tables 28, 29, 30 and 31 on a weekly and yearly basis. General practitioners work an average of 37.5 total hours or 32.8 chairside hours per week, with clinical specialists practising weekly one to two hours less than this (Tables 28 and 29). The general practitioners work, on average, just over 1700 total hours or just under 1500 chairside hours per year, with these figures, again, being slightly higher than those of the clinical specialists (Tables 30 and 31). Nearly 16% of those in specialty practice work 1100 or fewer chairside hours per year and just over 11% work over 1800 chairside hours; fewer general practitioners (12%) work less than 1101 chairside hours and more (16%) work over 1800 chairside hours.

As expected, about two-thirds of the 1978 graduates worked in the lowest categories of annual total and chairside hours listed in Tables 30 and 31. The 1978 graduates comprised only about 20% of the total number of private practitioners working the lowest amount of annual hours.

TABLE 28

TOTAL NUMBER OF HOURS WORKED PER WEEK BY DENTISTS

Number of Hours	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
1-30	467	15.2	340	12.8	63	18.3
31-35	732	23.8	639	24.1	88	25.6
36-39	560	18.2	502	18.9	55	16.0
40-44	792	25.7	713	26.9	74	21.5
45-75	530	17.2	458	17.3	64	18.6
Totals	3081	100.1	2652	100.0	344	100.0
	$\bar{x}(s.d.)=36.9$ (8.3) Median =36.5		$\bar{x}(s.d.)=37.5$ (7.3) Median =37.5		$\bar{x}(s.d.)=36.5$ (8.8) Median =36.0	

TABLE 29

NUMBER OF CHAIRSIDE HOURS WORKED PER WEEK BY DENTISTS

Number of Hours	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
1-26	454	14.8	324	12.2	66	19.2
27-31	661	21.5	555	21.0	97	28.3
32-35	1058	34.4	938	35.4	113	32.9
36-39	433	14.1	404	15.3	27	7.9
40-72	469	15.2	427	16.1	40	11.7
Totals	3075	100.0	2648	100.0	343	100.0
	$\bar{x}(s.d.)=32.1$ (7.4) Median =32.5		$\bar{x}(s.d.)=32.8$ (6.5) Median =33.0		$\bar{x}(s.d.)=30.5$ (7.7) Median =31.5	

TABLE 30

TOTAL NUMBER OF HOURS WORKED PER YEAR BY DENTISTS

Number of Hours	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
Under 1301	466	15.3	351	13.4	52	15.3
1301-1600	719	23.6	615	23.4	95	27.9
1601-1900	939	30.8	837	31.8	95	27.9
1901-2100	508	16.6	455	17.3	51	15.0
2101-3750	420	13.8	370	14.1	47	13.8
Totals	3052	100.1	2628	100.0	340	99.9
	$\bar{x}(s.d.)=1680.1$ (443.8) Median =1692.0		$\bar{x}(s.d.)=1708.4$ (407.3) Median =1728.0		$\bar{x}(s.d.)=1675.0$ (452.5) Median =1680.0	

TABLE 31

NUMBER OF CHAIRSIDE HOURS WORKED PER YEAR BY DENTISTS

Number of Hours	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
Under 1101	437	14.3	320	12.2	53	15.7
1101-1400	681	22.4	568	21.6	104	30.8
1401-1600	761	25.0	664	25.3	91	26.9
1601-1800	699	22.9	645	24.6	51	15.1
1801-3600	468	15.4	428	16.3	39	11.5
Totals	3046	100.0	2625	100.0	338	100.0
	$\bar{x}(s.d.)=1465.4$ (394.3) Median =1504.0		$\bar{x}(s.d.)=1499.2$ (360.5) Median =1512.0		$\bar{x}(s.d.)=1403.6$ (392.4) Median =1439.9	

Alterations in Practice Time in 1979

Respondents were asked to estimate if their practice time in 1979 would change relative to that experienced in 1978 (Table 32). Regarding all respondents, most (76% to 78%) indicated similar practice time, with about 13% anticipating less, and 9% to 12% more time in 1979 over 1978. The understandable shifts in the relative percent distributions when the views of the 1978 graduates concerning their anticipated 1979 practice time are also evident in Table 32.

TABLE 32

Anticipated Practice Time in 1979 Compared to 1978	ALTERATIONS IN PRACTICE TIME									
	Private Practitioners				General Practitioners				Clinical Specialists	
	Frequency	Relative Percent			Frequency	Relative Percent			Frequency	Relative Percent
		**	*	**		***	**	*		
Same	2375	78.7	75.9	12.7	2037	78.7	75.5	11.6	271	78.1
More	364	8.5	11.6	82.8	324	8.4	12.0	84.5	30	8.6
Less	391	12.8	12.5	4.5	336	12.9	12.5	3.9	46	13.3
Totals	3130	100.0			2697	100.0			347	100.0

* 1908-1977 graduates only
 ** all respondents
 *** 1978 graduates only

Patient Visits

Tables 33 to 39 give the estimated numbers of patient visits handled by private dental practitioners and their allied staff. Tables 33 and 34 show the numbers of patients treated by dentists (including patients also seen by their auxiliaries) and by dentists plus patients presumably treated separately by their operating auxiliary staff* (dental hygienists, denture therapists and preventive dental assistants). General practitioners estimated that they treated 75 patients per week but with the addition of patients treated separately by their dental auxiliaries, this rose by about eight patients to just over 83 patients*. As indicated by the median value, one-half of the general practitioners and their operating auxiliary staff treated 80 or fewer patients weekly, with about 8%

* It should be noted that the re-coding method used to derive the dentist plus auxiliary patient visit number variable slightly underestimated the additional auxiliary patient visit number.

treating 40 or less and 9% treating 130 or more (Table 34). Clinical specialists treated, on average, eleven or twelve more patients weekly than general practitioners (Tables 33 and 34). About 22% of clinical specialists and their auxiliaries treated 130 or more patients weekly (Table 34).

The estimated numbers of patients treated by the respondents' dental hygienists, denture therapists and preventive dental assistants, whether or not these patients were also treated by the dentist, are found in Tables 35, 36 and 37. It must be emphasized that these data refer only to those dentists employing (and reporting upon*) these personnel and include all full- and part-time staff employed in each category. Dental hygienists working in general practice treated, on average, 32 patients per week, with 17% of dentists reporting that their dental hygienists treated less than 15 patients, and 26% of dentists reporting over 41 patients treated weekly (Table 35). Dental hygienists working for clinical specialists treated, on average, about nine or more patients weekly than hygienists in general practice. The relatively few general practitioners (n=84) reporting their employment indicated that denture therapists treated, on average, 12 patients weekly, with 46% of the dentists suggesting fewer than 7 patients, and 25% suggesting more than 12 patients weekly (Table 36). Data on patients treated by preventive dental assistants were reported by 132 general practitioners (Table 37). These auxiliaries treated, on average, 20 patients weekly, with 20% of dentists indicating fewer than 7 patients, and 28% of dentists indicating more than 24 patients weekly.

The numbers of patients treated weekly by dentists (including patients also treated by their auxiliaries) and by dentists plus (separately) by their operating auxiliary staff are strongly related to the number treated yearly. Nevertheless these annual visit data are reported in Tables 38 and 39. Shifts in the expected distribution of annual patients are possible if the number of weeks dentists work is unevenly distributed according to their weekly patient load. Also, inclusion of the 1978 graduates slightly lowers the annual patient visit averages of the private and general practitioners groups (no 1978 graduates were clinical specialists). General practitioners had, on average, 3434 patient visits in 1978, with 13% having less than 2000 visits and 12% having 5000 and more visits (Table 38).

* About 95% of respondents who indicated that they employed dental hygienists and denture therapists gave patient numbers; about 74% of those employing preventive dental assistants did so.

Clinical specialists treated many more patients in 1978, 4011 on average. When the patients treated separately by the operating auxiliaries (as before, dental hygienists, denture therapists and preventive dental assistants) are added to those treated by the dentist, the annual visits increased by about 400 visits for general practitioners and by about 333 for clinical specialists (Table 39).

TABLE 33

TOTAL PATIENT VISITS PER WEEK FOR DENTISTS*

Number of Patients Treated Per Week	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
Under 41	367	11.9	264	9.9	43	12.6
41-50	321	10.4	275	10.3	41	12.0
51-60	461	14.9	413	15.5	42	12.3
61-80	863	28.0	785	29.5	70	20.5
81-100	631	20.5	575	21.6	51	15.0
101 and over	442	14.3	347	13.1	94	27.6
Totals	3085	100.0	2659	99.9	341	100.0
	$\bar{x}(s.d.)=74.9$ (32.2) Median =72.0		$\bar{x}(s.d.)=74.8$ (28.4) Median =72.0		$\bar{x}(s.d.)=86.8$ (47.5) Median =75.0	

* Includes, where applicable, patients also seen by the dentists' dental hygienists, denture therapists and preventive dental assistants.

TABLE 34

TOTAL PATIENT VISITS PER WEEK FOR DENTISTS PLUS
DENTAL HYGIENISTS, DENTURE THERAPISTS AND PREVENTIVE DENTAL ASSISTANTS**

	Private Practitioners		General Practitioners		Clinical Specialists	
Number of Patients Treated Per Week	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
Under 41	307	10.0	219	8.2	30	8.8
41-55	378	12.3	325	12.2	44	12.9
56-70	540	17.5	485	18.2	48	14.1
71-85	564	18.3	508	19.1	52	15.2
86-100	562	18.2	507	19.1	50	14.7
101-129	415	13.5	372	14.0	41	12.0
130 and over	319	10.3	243	9.1	76	22.3
Totals	3085	100.1	2659	99.9	341	100.0
	$\bar{x}(s.d.)=83.1 (37.1)$ Median =80.0		$\bar{x}(s.d.)=83.3 (34.2)$ Median =80.0		$\bar{x}(s.d.)=94.0 (48.5)$ Median =83.6	

** The additional patients represent those seen primarily and perhaps only by the denture therapist, dental hygienist or preventive dental assistant. Also note that, as explained in the text, the calculation of the additional patients resulted in a slight underestimate of the actual number.

TOTAL PATIENT VISITS PER WEEK BY DENTAL HYGIENISTS

Number of Patients Treated Per Week	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
2-14	181	17.8	157	17.2	17	16.7
15-29	314	30.8	292	32.0	21	20.6
30-41	246	24.2	224	24.7	21	20.7
42 and over	279	27.2	235	26.1	43	42.0
Totals	1020	100.0	908	100.0	102	100.0
	$\bar{x}(s.d.)=32.9$ (20.1) Median =29.7		$\bar{x}(s.d.)=32.1$ (19.0) Median =29.6		$\bar{x}(s.d.)=41.7$ (26.9) Median =34.5	

TABLE 36

TOTAL PATIENT VISITS PER WEEK BY DENTURE THERAPISTS

Number of Patients Treated Per Week	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
1-2	13	15.2	13	15.5	0	0.0
3-6	26	30.2	26	31.0	0	0.0
7-12	24	27.9	24	28.7	0	0.0
13 and over	23	26.7	21	24.8	2	100.0
Totals	86	100.0	84	100.0	2	100.0
	$\bar{x}(s.d.)=12.8$ (15.2) Median = 8.3		$\bar{x}(s.d.)=11.9$ (14.1) Median = 8.1			

TABLE 37

TOTAL PATIENT VISITS PER WEEK BY PREVENTIVE DENTAL ASSISTANTS

Number of Patients Treated Per Week	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
1-6	28	17.9	26	19.8	1	4.5
7-15	47	30.0	40	30.3	7	31.8
16-24	35	22.3	29	22.0	5	22.7
25 and over	46	29.8	37	27.9	9	41.0
Totals	156	100.0	132	100.0	22	100.0
	$\bar{x}(s.d.)=21.4$ (17.8) Median =16.1		$\bar{x}(s.d.)=20.4$ (17.5) Median =15.5		$\bar{x}(s.d.)=27.8$ (19.2) Median =20.2	

TABLE 38

NUMBER OF PATIENT VISITS PER YEAR FOR DENTISTS*

Number of Patients	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
Less than 2,000	461	15.1	349	13.3	49	14.6
2,000-2,999	783	25.7	692	26.3	83	24.7
3,000-3,999	879	28.8	800	30.4	71	21.1
4,000-4,999	511	16.7	465	17.7	42	12.5
5,000 and over	418	13.7	326	12.4	91	27.1
Totals	3052	100.0	2632	100.1	336	100.0
	$\bar{x}(s.d.)=3438.3$ (1558.4) Median = 3300.0		$\bar{x}(s.d.)=3433.9$ (1390.9) Median = 3312.0		$\bar{x}(s.d.)=4011.4$ (2236.8) Median = 3500.0	

* Includes, where applicable, patients also seen by the dentists' dental hygienists, denture therapists and preventive dental assistants.

TABLE 39

TOTAL NUMBER OF PATIENT VISITS PER YEAR FOR DENTISTS PLUS
DENTAL HYGIENISTS, DENTURE THERAPISTS, PREVENTIVE DENTAL ASSISTANTS**

Number of Patients	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
Less than 2000	394	12.9	295	11.2	37	11.0
2000-2999	618	20.2	540	20.5	69	20.5
3000-3999	786	25.8	709	26.9	70	20.8
4000-4999	583	19.1	531	20.2	48	14.3
5000 and over	671	22.0	557	21.2	112	33.3
Totals	3052	100.0	2632	100.0	336	99.9
	$\bar{x}(s.d.)=3821.7$ (1793.9) Median = 3645.0		$\bar{x}(s.d.)=3833.4$ (1667.0) Median = 3672.0		$\bar{x}(s.d.)=4343.9$ (2287.3) Median = 3870.0	

** The additional patients represent those seen primarily and perhaps only by the denture therapist, dental hygienist or preventive dental assistant. Also note that, as explained in the text, the calculation of the additional patients resulted in a slight underestimate of the actual number.

Chairside Time and Patient Visits per Chairside Hour

General practitioners spent, on average, 88% of their total working time at the chairside, and clinical specialists nearly 85% (Table 40). About 9% of general practitioners and 18% of clinical specialists spent less than 76% of their office time at the chair, and 13% of each group claimed that they spent all of their total office time at the chairside working on patients. As shown in the footnote to Table 40, there was very little variation in the percent of time spent at the chair by general practitioners according to the mode of their practice organization.

Table 41 presents data on the average number of patients seen by dentists per chairside hour worked. Large differences between general and specialty practitioners are observed. General practitioners saw, on average, 2.3 patients per chairside hour whereas clinical specialists saw 2.9. Nearly 8% of general practitioners and 10% of specialty practitioners saw fewer than 1.4 patients per chairside hour, while 8% of general and 28% of specialty practitioners saw over 3.5 patients per chairside hour. Among general practitioners, those in associate practice saw far fewer patients (about 17% less) per chairside hour (1.9) than in the other modes of general practice (about 2.3 -- see footnote to Table 41).

TABLE 40

PERCENT OF DENTISTS' TIME PER DAY SPENT AT CHAIRSIDE

Percent of Dentists' Time	Private Practitioners		General Practitioners*		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
10-75.9	332	10.9	245	9.4	61	18.0
76-81.9	330	10.9	271	10.4	47	13.9
82-87.9	821	27.0	717	27.4	91	26.9
88-92.9	605	19.9	533	20.4	61	18.0
93-99.9	542	17.8	505	19.3	34	10.1
100	408	13.4	347	13.3	44	13.0
Totals	3038	99.9	2618	100.2	338	99.9
	$\bar{x}$ (s.d.)=87.4 (10.0) Median =88.2		$\bar{x}$ (s.d.)=88.0 (9.1) Median =88.2		$\bar{x}$ (s.d.)=84.7 (12.3) Median =87.5	

	N	$\bar{x}$
*G.P.'s (solo pract.)	1579	87.7
G.P.'s (partnership)	139	87.7
G.P.'s (cost sharing)	467	88.5
G.P.'s (associateship)	366	88.6

TABLE 41
NUMBER OF PATIENT VISITS PER CHAIRSIDE HOUR WORKED

Number of Patients	Private Practitioners		General Practitioners*		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
0.5-1.3	257	8.5	200	7.6	33	9.9
1.4-1.6	355	11.7	312	11.9	28	8.4
1.7-1.9	450	14.8	395	15.1	40	11.9
2.0-2.2	544	17.9	493	18.8	41	12.2
2.3-2.5	461	15.2	426	16.3	30	9.0
2.6-2.9	339	11.2	305	11.7	33	9.9
3.0-3.5	315	10.4	275	10.5	35	10.4
3.6-12.5	311	10.3	210	8.0	95	28.4
Totals	3032	100.0	2616	99.9	335	100.1
	$\bar{x}(s.d.)=2.3 (1.0)$ Median =2.1		$\bar{x}(s.d.)=2.3 (0.8)$ Median =2.1		$\bar{x}(s.d.)=2.9 (1.5)$ Median =2.5	

	N	$\bar{x}$
*G.P.'s (solo pract.)	1569	2.3
G.P.'s (partnership)	140	2.3
G.P.'s (cost sharing)	475	2.4
G.P.'s (associateship)	365	1.9

Work and Patient Visit Characteristics Relative to Dentists' Practice Mode and Age

This section first examines the relationship among various modes of practice and a number of measures of average practice time and average patient visit experience. Two qualifying comments are needed. First, since the samples included about 134 dentists who graduated in 1978, the average annual practice hours and patient visits are slightly underestimated. The understandably shorter number of weeks worked by the 1978 graduates has been mentioned previously. Secondly, and this also has been mentioned previously, the coding procedure used may give a slightly lower estimate of total patient visits by dentists plus auxiliaries.

Dentists' average time in practice under various practice modes is found in Table 42. Among private practitioners there was generally little variation in the various measures of practice time according to the modes of practice; those in shared practice tended to work the longest, and those in associate practice the shortest time (the difference per week being about 1.5 hours). Clinical specialists worked, on average, fewer days per week (4.4 vs. 4.7) and fewer chair-side hours per week (30.4 vs. 32.8) than general practitioners (Table 42).

The average patient visit experience of dentists and their operating auxiliary personnel according to practice type is displayed in Table 43. Among the various modes of general practice, associate dental practitioners saw markedly fewer patients -- an estimated 2640 dentist patients per year versus 3544 for solo practitioners and 3480 to 3695 for partnership and shared cost practitioners, respectively. Clinical specialists, on the other hand, saw the most patients of all in 1978, an estimated average of 4020 per dentist (Table 43) or 12% more patients than general practitioners. When comparing the patient visit experience of three groups of general practitioners -- solo, partnership and cost sharing -- interesting differences emerge. Using weekly patient visits, Table 43 shows that solo practitioners saw fewer patients than those in the two combined forms of practice. Slight differences in the number of dentist patients per week between solo and partnership practitioners became much larger when the dentist plus dental auxiliary patient differences were considered (82 for solo and 96 for partnership practitioners). This change was due to two factors; those in partnership employed relatively more operating auxiliaries and, secondly, each of these auxiliaries saw more patients than did their solo practice counterparts (Table 43). Shared cost practitioners had, on average, more patients per week (77.6 vs. 79.7) than partnership practitioners but this difference disappeared, for the same reasons cited above, when the total patients of dentists plus their auxiliaries were considered.

DENTISTS' AVERAGE PRACTICE TIME ACCORDING TO MODE OF PRACTICE

Practice Time	Private Practitioners		General Practitioners		G.P.'s in Solo Practice		G.P.'s in Partnership Practice		G.P.'s in Shared Cost Practice		G.P.'s in Associate Practice		Clinical Specialists	
	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$
Number of Weeks Worked in 1978	3100	45.4	2672	45.4	1618	46.0	143	45.0	479	46.3	372	41.9	342	45.8
Number of Days Worked Per Week	3125	4.6	2693	4.6	1631	4.7	144	4.6	485	4.7	373	4.5	346	4.4
Number of Hours Worked Per Week	3068	36.9	2642	37.5	1601	37.6	141	38.0	475	38.0	366	36.4	342	36.5
Number of Chairside Hours Worked Per Week	3061	32.1	2638	32.8	1598	32.8	141	33.3	476	33.6	366	32.1	340	30.4
Number of Hours Worked Per Year	3040	1679.8	2618	1708.6	1587	1734.2	140	1713.1	469	1760.6	364	1541.4	338	1671.6
Number of Chairside Hours Worked Per Year	3033	1464.7	2615	1499.2	1585	1514.1	140	1508.4	470	1557.4	364	1365.9	335	1398.6

TABLE 43

AVERAGE NUMBER OF PATIENT VISITS BY EACH LISTED GROUP ACCORDING TO MODE OF PRACTICE

Group	Private Practitioners		General Practitioners		G.P.'s in Solo Practice		G.P.'s in Partnership Practice		G.P.'s in Shared Cost Practice		G.P.'s in Associate Practice		Clinical Specialists	
	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$
total patient visits per week by dentists plus auxiliaries*	3071	83.1	2649	83.3	1597	82.0	143	96.4	484	94.0	367	71.6	338	94.2
total patient visits per week by dentists	3071	74.8	2649	74.7	1597	76.3	143	77.6	484	79.7	367	61.3	338	87.0
total patient visits per year by dentists plus auxiliaries*	3039	3822.1	2622	3833.0	1580	3811.6	142	4333.3	478	4371.1	365	3104.7	333	4355.1
total patient visits per year by dentists	3039	3437.3	2622	3432.3	1580	3544.1	142	3479.7	478	3694.8	365	2640.0	333	4019.6
total patient visits per week by dental hygienists	1018	32.9	906	32.1	426	30.8	86	34.8	255	32.9	130	34.0	102	41.7
total patient visits per week by denture therapists	86	12.8	84	11.9	28	8.3	12	16.3	26	14.0	15	11.7	2	50.0
total patient visits per week by Prev. Dent. assistants	156	21.4	132	20.4	62	19.3	13	24.5	29	19.9	24	20.5	22	27.8

See previous table footnotes and text explaining difference between "dentist" and "dentist plus auxiliaries" patient visits.

Average weekly patient visits to dentists and to dentists plus auxiliaries according to dentist age are presented in Table 44 and Figures 3 and 4 . As expected, both younger and older dentists have fewer patients (possibly for quite different reasons, however). Dentist patient visits which included some patients seen also by auxiliaries, peak at dentist age 45 to 50 years (84 patient visits). When the patients seen by auxiliaries but presumably not by the dentist are added, then the highest average weekly visits occurred earlier, in the age range 35 to 40 years. Index numbers have been included to facilitate comparisons. For example, dentists under 30 years of age have about three-quarters as many (77%, 75%) patient visits as the age group with the highest average patient visits. And dentists from 65 to 70 years of age have, on average, about two-thirds as many patient visits (69%, 63%).

TABLE 44

AVERAGE WEEKLY PATIENT VISITS*FOR GENERAL PRACTITIONERS
AND
GENERAL PRACTITIONERS PLUS AUXILIARIES BY DENTIST AGE

Age	No. of Dentists	Dentists		Dentists plus Auxiliaries	
		Average No. of Visits	Index %	Average No. of Visits	Index %
Less than 30.0	478	65	77	71	75
30.5-34.5	622	77	92	88	93
35.5-39.5	424	83	99	95	100
40.5-44.5	276	79	94	92	97
45.5-49.5	244	84	100	91	96
50.5-54.5	212	78	93	85	89
55.5-59.5	195	70	83	74	78
60.5-64.5	102	65	77	69	73
65.5-69.5	54	58	69	60	63
70.5-97.5	42	41	49	41	43
Totals	2649	75	-	83	-

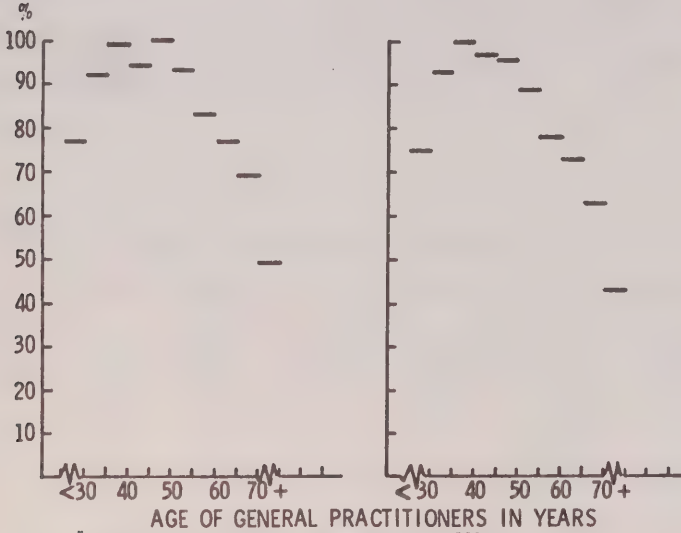
*See previous table footnotes and text explaining difference between "dentist" and "dentist plus auxiliaries" patient visits.

FIGURE 3

INDEX (%) * OF
AVERAGE NUMBER OF PATIENT VISITS PER WEEK** BY DENTIST AGE

GENERAL PRACTITIONERS AVERAGE
NUMBER OF PATIENT VISITS
PER WEEK

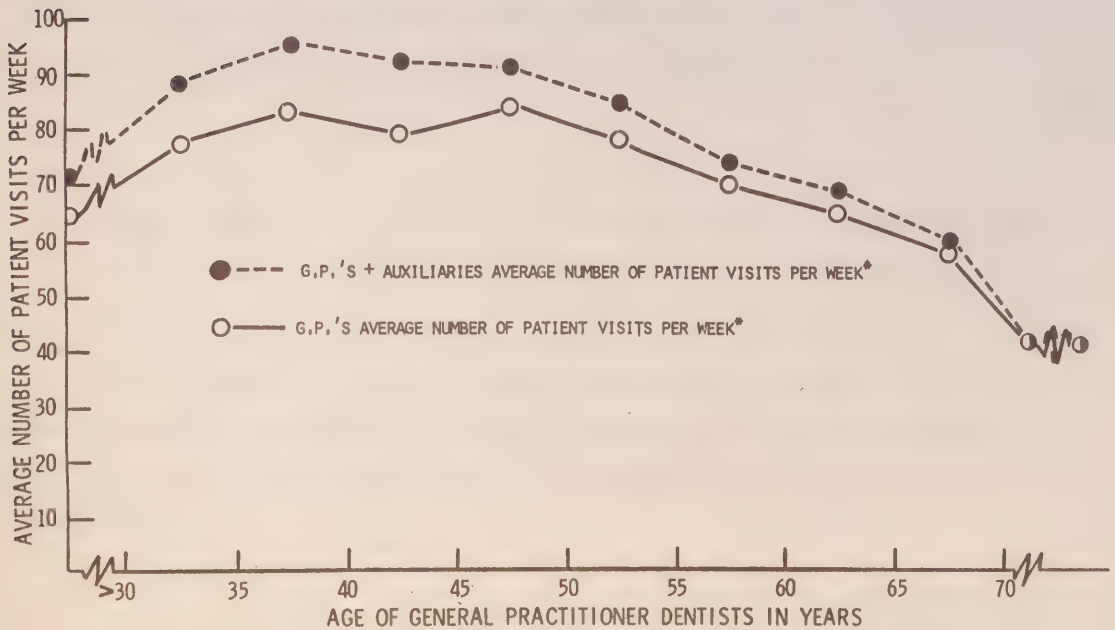
GENERAL PRACTITIONERS &
AUXILIARIES AVERAGE NUMBER OF
PATIENT VISITS PER WEEK



* AGE GROUP WITH HIGHEST AVERAGE VISITS = 100%
** SEE TEXT AND TABLES FOR DIFFERENCE BETWEEN 'DENTIST' AND 'DENTIST PLUS AUXILIARY' VISITS

FIGURE 4

AVERAGE NUMBER OF PATIENT VISITS PER WEEK* BY DENTIST AGE



* SEE TEXT AND TABLES FOR DIFFERENCE BETWEEN 'DENTIST' AND 'DENTIST PLUS AUXILIARY' VISITS

OFFICE EQUIPMENT

The number of operatories used by the responding dentists is given in Table 45. The average number of main office operatories used is about two (1.9 for general practitioners and 2.2 for clinical specialists). One-quarter of the general practitioners used just one operatory and 60% used two. The average number of operatories used by dentists having second and third offices is indicated in footnotes to Table 45.

TABLE 45

NUMBER OF OPERATORIES USED IN THE MAIN OFFICE

Number of Operatories Used	Private Practitioners*		General Practitioners**		Clinical Specialists***	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
1	780	25.4	671	25.2	71	21.4
2	1786	58.1	1599	60.1	156	47.0
3	396	12.9	320	12.0	69	20.8
4	79	2.6	51	1.9	26	7.8
5	23	0.7	16	0.6	6	1.8
6	9	0.3	5	0.2	4	1.2
Totals	3073	100.0	2662	100.0	332	100.0
	$\bar{x}(s.d.)=2.0 (0.8)$ Median =1.9		$\bar{x}(s.d.)=1.9 (0.7)$ Median =1.9		$\bar{x}(s.d.)=2.2 (1.0)$ Median =2.1	

* - 6.7% of Private Practitioners used operatories in second office ($\bar{x} = 1.6$).
- 0.6% of Private Practitioners used operatories in third office ($\bar{x} = 2.1$).

** - 5.5% of General Practitioners used operatories in second office ($\bar{x} = 1.5$)
- 0.2% of General Practitioners used operatories in third office ($\bar{x} = 1.7$).

*** - 15.3% of Clinical Specialists used operatories in second office ($\bar{x} = 2.0$).
- 3.4% of Clinical Specialists used operatories in third office ($\bar{x} = 2.3$).

The total number of x-ray units in the dental offices of respondents is listed in Table 46. The average of 2.3 x-ray units for private practitioners suggests that the x-ray units of the other dentists in non-solo practices (40% of practitioners) might have been included in the x-ray totals. As shown in the footnotes to Table 46, 15% of general practitioner respondents and 32% of clinical specialist respondents (having at least one x-ray unit) indicated that the office(s) in which they worked had a Panorex unit as part of this x-ray equipment.

TABLE 46

TOTAL NUMBER OF X-RAY UNITS IN DENTAL OFFICE(S)

Number of X-ray Units	Private Practitioners*		General Practitioners**		Clinical Specialists***	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
0	32	1.0	3	0.1	26	7.5
1	970	31.0	821	30.4	118	34.2
2	1096	35.0	963	35.6	105	30.4
3	568	18.1	511	18.9	46	13.3
4	215	6.9	191	7.1	20	5.8
5	99	3.2	87	3.2	11	3.2
6+	152	4.9	129	4.8	19	5.5
Totals	3132	100.1	2705	100.1	345	99.9
	$\bar{x}(s.d.)=2.3 (1.3)$ Median =2.0		$\bar{x}(s.d.)=2.3 (1.3)$ Median =2.0		$\bar{x}(s.d.)=2.1 (1.5)$ Median =1.8	

* - 17.3% of Private Practitioners who had one or more x-ray units had a Panorex unit.

** - 15.1% of General Practitioners who had one or more x-ray units had a Panorex unit.

*** - 31.9% of Clinical Specialists who had one or more x-ray units had a Panorex unit.

STAFF CHARACTERISTICS

Numbers and Types of Staff, and Hours Worked

Table 47 presents frequency distributions of the number of the various types of dental auxiliaries and denture therapists employed both full- and part-time by the dentist respondents*. As well, the mean number per dentist and median number of each type of auxiliary employed (including dentists employing none) are given. In terms of these means (averages), the most common types of auxiliaries, in decreasing order of popularity, are: non-certified dental assistants (0.8); secretary/receptionists (0.6); certified dental assistants (0.5); dental hygienists (0.4); and preventive dental assistants (0.1) and office manager/bookkeepers (0.1).

It is also of interest using Table 47 to note differences in the relative percentages among the various types of employees, and between general and specialist practitioners for each type of employee. Some examples follow. Relatively more clinical specialists (47%) do not employ non-certified dental assistants than general practitioners (34%) but fewer clinical specialists (40%) than general practitioners (50%) employ no secretary/receptionists. About two-thirds of both general and specialist dentists do not employ any dental hygienists. Many more clinical specialists (prosthodontists?) employ laboratory technicians (10.6%) and many more specialists (oral surgeons?) employ registered nurses (15.1%) than do general practitioners (2.4% and 0.5%, respectively).

Table 47 also shows the frequency distribution of the combination of all types of auxiliaries (full- and part-time) employed by dentist respondents. Three and one-half percent of general practitioners and nearly five percent (4.8%) of clinical specialists employ no auxiliaries. Just over one-half of general practitioners employ one (22.6%) or two (28.6%) auxiliaries. About 22% of general practitioners and clinical specialists employ three auxiliaries; however, above three, specialists employ more (41.4% of specialists versus 23.1% of general practitioners).

Since the number of employees includes a mix of both full- and part-time personnel in unknown proportions, the extent or quantity of auxiliary employment is better measured by the average number of hours each dentist group employs each type of auxiliary. These average hours, in decreasing order for private practitioners, are listed in Table 48. The rank order for the first six most "popular" auxiliaries exactly parallels the order of the numbers employed, as previously

*Note that the "other" category of auxiliary tabled here includes not only less common types of auxiliaries but also any of the tabled kinds of auxiliaries over 4 in number; thus the means for some auxiliary types may be slightly underestimated.

described. The dominant position of the first three types of auxiliaries in private practice over the others is very evident; non-certified dental assistants, secretary-receptionists and certified dental assistants work, on average, 26, 18 and 16 hours per week, respectively, while the fourth highest employee, dental hygienists, work, on average just 8 hours per week. No other class of auxiliary (or denture therapist) works using all respondents as the sample size as much as an average of three hours per week. (These averages are, of course, higher if the actual number of dentists employing the auxiliary type are used.)

Table 48 also permits comparisons of auxiliary employment hours among various kinds of dental practice. For example, clinical specialists employ, using average hours, notably more laboratory technician, secretary/receptionist and registered nurse help than general practitioners. Within general practice, those in solo practice employ less dental assistant (certified plus non-certified), dental hygienist, laboratory technician, denture therapist and office manager/book-keeper help than other types of general practitioners.

Among general practitioners, those in partnership tend to utilize the most auxiliary staff, with both types of dental assistants, dental hygienists, laboratory technicians and denture therapists being employed relatively much more.

These observations about differences among auxiliary employment among various modes of dental practice are confirmed when the aggregate number and type of all auxiliaries per dentist, and average total weekly hours worked by all auxiliaries are examined (Table 49). Clinical specialists employ more auxiliaries and more different types of auxiliaries for more hours per week than general practitioners. And general practitioners in partnership employ many more auxiliaries than solo private practitioners.* General practitioners in shared cost practice utilize dental auxiliaries less than those in partnership but much more than those in solo practice.*

Since private practitioners, general practitioners and clinical specialists reported their average weekly work hours as 36.9, 37.5 and 36.5 hours, respectively, it is possible using these figures to estimate more accurately the number of full-time equivalent employees using Table 49. Using all dentists as the

*While the excess of auxiliaries in partnership and shared cost practice is not unexpected and has been observed elsewhere, there is a possibility that the dentists working in these "group" practices each report personal employment of relatively more of the group's auxiliary staff than appropriate. This would inflate the "group" practice averages artificially.

basis for comparison the average numbers are 2.05, 2.02 and 2.54 full-time equivalent auxiliaries for private practitioners, general practitioners and clinical specialists, respectively. This demonstrates the problem alluded to earlier regarding the unknown mix of the full- and part-time number of employees since these average numbers are 2.7, 2.7 and 3.5 for the three groups of dentists. Using the average weekly hours of those dentists employing auxiliaries (the bracketed figures in Table 49) gives the average full-time equivalent number of employees as 2.22, 2.14 and 2.85 for private practitioners, general practitioners and clinical specialists, respectively.

Personnel Sought

Table 50 indicates the type of staff or, in some instances, types of staff being sought by 465 private practitioner respondents -- nearly 15% of all private practitioner respondents -- as well as by the general or specialty practice breakdown. Just over twenty-seven percent of the 465 private practitioners were seeking dental hygienists. Just under thirteen percent (12.7%) were seeking certified dental assistants and an identical number wanted to hire a dental associate. The fourth highest type of staff being sought (10.5%) was secretary/receptionists. The least sought types of staff were denture therapists and lab technicians, each 0.4%.

Table 51 lists the primary reasons given by 164 general practitioner respondents for their difficulties in recruiting new personnel. Difficulties in finding experienced people (29.9%) and in location (21.3%) were the two most common reasons cited. Interestingly, hours (4.3%) and salary (3.0%) were the two least common reasons cited by the dentists.

TABLE 47

DISTRIBUTION OF THE NUMBER OF EACH TYPE OF
AUXILIARY EMPLOYED BY DENTISTS

Non-Certified Dental Assistant

No.	Private Practitioners	General Practitioners	Clinical Specialists
	%	%	%
0	35.7	33.6	46.7
1	49.4	51.1	38.7
2	12.2	12.6	10.8
3	2.0	2.0	2.3
4	0.7	0.6	1.4
N	3152	2716	351
	$\bar{x} = 0.8$ Median = 0.8	$\bar{x} = 0.8$ Median = 0.8	$\bar{x} = 0.7$ Median = 0.6

Certified Dental Assistant

No.	Private Practitioners	General Practitioners	Clinical Specialists
	%	%	%
0	59.0	59.2	57.3
1	33.1	33.3	31.6
2	6.5	6.2	9.1
3	0.9	0.8	1.4
4	0.5	0.4	0.6
N	3154	2718	351
	$\bar{x} = 0.5$ Median = 0.3	$\bar{x} = 0.5$ Median = 0.3	$\bar{x} = 0.6$ Median = 0.4

* $\bar{x}$'s in this table include dentists who do not employ each type of auxiliary, i.e. zero number. Note also that the number of auxiliaries employed represents both full- and part-time staff.

TABLE 47 (cont'd)

Preventive Dental Assistant			
No.	Private Practitioners	General Practitioners	Clinical Specialists
	<u>%</u>	<u>%</u>	<u>%</u>
0	93.3	93.5	90.6
1	6.0	5.9	8.0
2	0.7	0.6	1.4
3	0.0	0.0	0.0
4	0.0	0.0	0.0
N	3152	2717	350
	$\bar{x} = 0.1$ Median 0.0	$\bar{x} = 0.1$ Median 0.0	$\bar{x} = 0.1$ Median 0.1

Dental Hygienist			
No.	Private Practitioners	General Practitioners	Clinical Specialists
	<u>%</u>	<u>%</u>	<u>%</u>
0	66.4	65.9	66.1
1	27.8	28.5	25.6
2	4.5	4.5	6.3
3	1.0	0.9	1.4
4	0.2	0.2	0.6
N	3150	2716	351
	$\bar{x} = 0.4$ Median = 0.2	$\bar{x} = 0.4$ Median = 0.2	$\bar{x} = 0.4$ Median = 0.3

$\bar{x}$'s in this table include dentists who do not employ each type of auxiliary, i.e. zero number. Note also that the number of auxiliaries employed represents both full- and part-time staff..

TABLE 47 (cont'd)

Secretary/Receptionist			
No.	Private Practitioners	General Practitioners	Clinical Specialists
	%	%	%
0	48.7	49.5	39.6
1	44.1	44.4	45.3
2	5.9	5.1	12.3
3	1.0	0.9	1.7
4	0.3	0.1	1.1
N	3153	2717	351
	$\bar{x} = 0.6$ Median = 0.5	$\bar{x} = 0.6$ Median = 0.5	$\bar{x} = 0.8$ Median = 0.7

Lab Technicians			
No.	Private Practitioners	General Practitioners	Clinical Specialists
	%	%	%
0	96.4	97.6	89.5
1	3.0	2.3	8.0
2	0.3	0.1	2.0
3	0.1	0.0	0.0
4	0.1	0.0	0.6
N	3154	2718	351
			$\bar{x} = 0.1$ Median = 0.1

* $\bar{x}$'s in this table include dentists who do not employ each type of auxiliary, i.e. zero number. Note also that the number of auxiliaries employed represents both full- and part-time staff.

TABLE 47 (cont'd)

No.	Denture Therapist		
	Private Practitioners	General Practitioners	Clinical Specialists
	<u>%</u>	<u>%</u>	<u>%</u>
0	97.1	96.7	99.4
1	2.7	3.0	0.6
2	0.2	0.3	0.0
3	0.0	0.0	0.0
4	0.0	0.0	0.0
N	3152	2716	351

No.	Office Manager/Bookkeeper		
	Private Practitioners	General Practitioners	Clinical Specialists
	<u>%</u>	<u>%</u>	<u>%</u>
0	83.9	84.3	78.3
1	15.3	15.1	19.9
2	0.7	0.6	1.7
3	0.0	0.0	0.0
4	0.0	0.0	0.0
N	3154	2718	351
	* $\bar{x}$ = 0.1 Median = 0.1	* $\bar{x}$ = 0.2 Median = 0.1	* $\bar{x}$ = 0.2 Median = 0.1

* $\bar{x}$'s in this table include dentists who do not employ each type of auxiliary, i.e. zero number. Note also that the number of auxiliaries employed represents both full- and part-time staff.

TABLE 47 (cont'd)

Expanded Duty Dental Hygienist

No.	Private Practitioners	General Practitioners	Clinical Specialists
	%	%	%
0	98.7	98.9	96.6
1	1.3	1.0	3.4
2	0.0	0.0	0.0
3	0.0	0.0	0.0
4	0.0	0.0	0.0
N	3154	2718	351

Register Nurse

No.	Private Practitioners	General Practitioners	Clinical Specialists
	%	%	%
0	97.7	99.5	84.9
1	1.1	0.4	5.7
2	0.6	0.1	4.3
3	0.2	0.0	1.7
4	0.4	0.0	3.4
N	3154	2718	351

* $\bar{x}$ = 0.3

Median = 0.1

* $\bar{x}$'s in this table include dentists who do not employ each type of auxiliary, i.e. zero number. Note also that the number of auxiliaries employed represents both full- and part-time staff.

TABLE 47 (cont'd)

Other Auxiliaries**

No.	Private Practitioners	General Practitioners	Clinical Specialists
	%	%	%
0	97.4	98.2	92.0
1	2.0	1.5	5.7
2	0.3	0.1	1.7
3	0.2	0.0	0.6
4	0.1	0.1	0.0
N	3154	2718	351

$\bar{x} = 0.1$

Median = 0.0

Number of Total Auxiliaries

No.	Private Practitioners	General Practitioners	Clinical Specialists
	%	%	%
0	3.9	3.5	4.8
1	22.0	22.6	13.4
2	27.2	28.6	17.7
3	22.0	22.1	22.8
4	11.8	11.5	15.4
5	6.2	5.8	10.3
6+	6.9	5.8	15.7
N	3154	2718	351

$\bar{x} = 2.7$

Median = 2.4

$\bar{x} = 2.7$

Median = 2.3

$\bar{x} = 3.5$

Median = 3.1

* $\bar{x}$'s in this table include dentists who do not employ each type of auxiliary, i.e. zero number. Note also that the number of auxiliaries employed represent both full- and part-time.

** "Other" includes not only a variety of other types of auxiliaries but also those auxiliaries tabled here in excess of 4 in number.

TABLE 48

AVERAGE NUMBER OF HOURS WORKED PER WEEK FOR EACH TYPE OF AUXILIARY BY MODE OF PRACTICE OF DENTISTS

	Private Practitioners		General Practitioners		G.P.'s in Solo Practice		G.P.'s in Partnership Practice		G.P.'s in Shared Cost Practice		G.P.'s in Associate Practice		Clinical Specialists	
	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$
Non-Certified Dental Assistant	3138	25.7	2706	26.7	1640	26.7	145	33.3	486	25.7	374	24.7	348	22.4
Secretary/Receptionist	3139	18.3	2707	18.0	1640	14.4	145	28.2	487	27.5	374	17.9	348	23.1
Certified Dental Assistant	3140	16.2	2708	16.3	1641	12.8	145	31.2	487	21.0	374	20.4	348	17.5
Dental Hygienist	3136	8.1	2706	8.1	1640	6.0	145	17.3	486	12.9	374	7.9	348	10.0
Office Manager/Bookkeeper	3140	2.9	2708	2.9	1641	1.8	145	7.5	487	5.0	374	3.2	348	3.6
Preventive Dental Assistant	3138	2.1	2707	2.0	1641	1.8	145	2.5	487	2.7	373	1.9	347	3.3
Registered Nurse	3140	1.0	2708	0.1	1641	0.1	145	0.0	487	0.2	374	0.1	348	7.4
Lab Technician	3140	0.9	2708	0.5	1641	0.2	145	2.9	487	0.8	374	0.5	348	3.6
Other	3140	0.7	2708	0.6	1641	0.4	145	3.6	487	0.5	374	0.5	348	1.5
Denture Therapist	3138	0.4	2706	0.4	1641	0.1	145	1.8	485	0.8	374	0.5	348	0.1
Expanded Duty Dental Hygienist	3140	0.2	2708	0.2	1641	0.2	145	0.2	487	0.2	374	0.2	348	0.7

* $\bar{x}$'s in this table include dentists who do not employ the indicated type of auxiliary, i.e. zero hours worked.

TABLE 49

AVERAGE NUMBER OF TOTAL AUXILIARIES, DIFFERENT TYPES OF AUXILIARIES
AND
TOTAL AUXILIARY HOURS WORKED PER DENTIST BY MODE OF PRACTICE OF DENTIST

	Private Practitioners		General Practitioners		G.P.'s in Solo Practice		G.P.'s in Partnership Practice		G.P.'s in Shared Cost Practice		G.P.'s in Associate Practice		Clinical Specialists	
	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$	N	$\bar{x}$
Average* Number of Total Auxiliaries (Full- and Part-time)	3154	2.7	2718	2.7	1641	2.2	145	4.6	487	3.5	374	3.0	348	3.5
Average* Number of Different Types of Auxiliary	3171	2.1	2720	2.1	1645	1.9	145	3.2	489	2.7	379	2.2	349	2.4
Average** Total Hours Worked Per Week by All Auxiliaries	3151 (2947)	76.0 (81.9)	2718 (2562)	75.6 (80.2)	1647 (1548)	64.4 (68.6)	145 (138)	128.6 (135.2)	490 (480)	97.2 (99.2)	375 (343)	77.6 (84.9)	351 (312)	92.7 (103.9)

* These averages include dentists in the indicated practice mode who do not employ auxiliaries.

** The figures in brackets refer only to dentists employing auxiliaries in each practice mode; figures not in brackets include dentists who do not employ auxiliaries.

TABLE 50

TYPE OF PERSONNEL SOUGHT

Type of Personnel	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
Non-Certified Dental Assistant	31	6.7	24	6.1	6	10.0
Certified Dental Assistant	59	12.7	53	13.5	5	8.3
Preventive Dental Assistant	23	4.9	17	4.3	6	10.0
Dental Hygienist	126	27.1	117	29.7	7	11.7
Expanded Duty Dental Hygienist	15	3.2	13	3.3	1	1.7
Lab Technician	2	0.4	0	0.0	2	3.3
Denture Therapist	2	0.4	1	0.3	1	1.7
Secretary/Receptionist	49	10.5	40	10.1	8	13.3
Office Manager	4	0.9	2	0.5	2	3.3
Registered Nurse	6	1.3	1	0.3	4	6.7
Specialist	8	1.7	7	1.8	1	1.7
Associate	59	12.7	51	12.9	6	10.0
Dental Assistant & Receptionist	17	3.7	15	3.8	2	3.3
Dental Assistant & Hygienist	15	3.2	14	3.5	0	0.0
Hygienist & Receptionist	4	0.9	4	1.0	0	0.0
Associate & Hygienist	9	1.9	8	2.0	1	1.7
Other	36	7.7	27	6.9	8	13.3
Totals	465	99.9	394	100.0	60	100.0

TABLE 51

DIFFICULTIES IN RECRUITING

Difficulties in Recruiting	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
Salary	5	3.0	5	3.6	0	0.0
Hours	7	4.3	5	3.6	1	4.5
Location	35	21.3	32	23.4	2	9.1
No Response to Advertisements	12	7.3	10	7.3	1	4.5
Experienced People Hard to Find	49	29.9	40	29.2	9	40.9
Specific Problem with Type of Personnel Sought	30	18.3	22	16.1	7	31.8
Other	26	15.9	23	16.8	2	9.1
Totals	164	100.0	137	100.0	22	100.0

PRACTICE ACTIVITY

Assessment of the activity of dental practices may reflect the state of dental manpower supply. Indirect and direct measures of the degree of dental practice activity available from the survey of dentists were: length of patient wait for an initial, regular (non-emergency) appointment; whether new patients were being taken; need for (another) dentist(s) in area; and perception of practice busyness.

Patient Wait for Appointments

Table 52 gives the distribution of days and median days that regular (non-emergency) patients would have to wait for an initial appointment as estimated by the responding dentists. Just over 21% of general practitioners and 18% of clinical specialists indicated that their patients would have to wait three days or less. At the other extreme, 9.4% of general practitioners and 16.5% of clinical specialists said the wait would be over 45 days. The median wait for the general practitioners' patients was about 10.7 days, i.e. one-half of these dentists' patients would wait 10.7 days. (For comparison, a 1978 U.S.A. survey found a median wait of 6.9 days for general practitioners -- Gift and Schaid, American Dental Association, 1979.) The median wait for the patients of clinical specialists was longer, about 15.6 days. (It should be stressed that these medians are derived from Table 52 which, in turn, is based on the assumption that a respondent only given the choice of coding 2 weeks or 1 month, meant, for example, 2 weeks plus or minus 3 days.)

TABLE 52

DAYS PATIENT REQUESTING AN APPOINTMENT NEEDS TO WAIT

Number of Days	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
1-3	641	20.6	570	21.3	62	18.0
4-10	835	26.9	755	28.2	57	16.5
11-17	615	19.8	525	19.6	75	21.7
18-24	408	13.1	339	12.7	55	15.9
25-45	288	9.3	237	8.8	39	11.3
46-75	172	5.5	140	5.2	28	8.1
76 and over	149	4.8	112	4.2	29	8.4
Totals	3108	100.0	2678	100.0	345	99.9
	Median = 11.4		Median = 10.7		Median = 15.6	

New Patients Taken?

Just over 91% of the general practitioners and nearly 99% of the clinical specialists were taking new patients (Table 53). Because of the referral nature of the work of many clinical specialists their very high reported percent is not surprising. The general practitioner percent seems higher than expected but caution must be observed since earlier data on similar questions are not believed to be available.

Need for Another Dentist in Area

Just under 7% of general practitioners and just under 10% of clinical specialists stated that there was a need for another dentist in their locality; that is, the vast majority considered there was no such need (see Table 54).

TABLE 53

NEW PATIENTS TAKEN

Are New Patients Taken?	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
Yes	2894	92.4	2467	91.4	344	98.9
No	239	7.6	231	8.6	4	1.1
Totals	3133	100.0	2698	100.0	348	100.0

TABLE 54

NEED FOR ANOTHER DENTIST IN AREA

Need for Another Dentist	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
Yes	232	7.6	184	6.9	32	9.8
No	2832	92.4	2472	93.1	295	90.2
Totals	3064	100.0	2656	100.0	327	100.0

Busyness

Earlier dental practice surveys in Ontario (1963, 1966, 1968) have shown that some dentists perceived they could be busier than they were. About 7% to 9% of general practitioners and 13% to 20% of recent dental graduates claimed they were less busy than they would like. It was of some interest, therefore, in the present survey to see if practice busyness had changed.

Dentists were asked to indicate whether they were "about as busy as", "less busy" or "busier" than they would like to be. This was, undoubtedly, a very personal, subjective question which was open to a variety of interpretations since no standards of the degree of busyness to be attached to each response category were defined. Dentists from the same community seeing about the same number of patients and working about the same number of hours may have answered the question differently. Similarly, the perceptions of dentists about practice busyness in different locations, e.g. urban and rural, may have varied. The basis for each dentist's response -- a careful appraisal of practice experience of the past six months or today's or yesterday's actual experience -- was uncertain. The psychological influence on response of present concerns about the future supply of dental personnel in Ontario or about the economy was also unknown. In view of this potential respondent variation, it is important that the validity of this subjective assessment of busyness be determined by relating it to more objective ones such as the numbers of patients treated and patient appointment waiting time.

Table 55 indicates that about 59% of the general practitioners felt they were as busy as they would like to be. Nearly 9% felt they were busier and 32.0% less busy than they would like to be. Clinical specialists perceived themselves as being busier than general practitioners; nevertheless, 24% claimed they were less busy than they liked.

As expected, perceptions of busyness varied with year of dentist graduation. Tables 56 and 57 show this relationship for private practitioners and general practitioners. The percent claiming they were less busy than they liked increased as year of graduation increased and, conversely, the percent claiming to be busier than they liked decreased as graduation year increased. Nearly one-half

(48.9%) of the large number of responding private practitioners (n=1208) who graduated between 1970 and 1978 were less busy than they liked while 5% were busier (Table 56). Except for the oldest group of graduates, the percent stating they were less busy never dropped below 10%.

The strong tendency for more recent graduates to be less busy is strikingly evident in Table 57 for general practitioners. Nearly three-quarters (73.4%) of 1978 graduates claimed they were less busy, and about 67% of 1977 and 1976 graduates felt similarly. Just 2% to 3% of these same graduates were busier than they liked.

Relative to earlier surveys in Ontario it is clear that late in 1978 and early in 1979 more dentists overall, and many more recent graduates perceived they were less busy than previously was the case (e.g. about 8%, "then" and 30% "now" overall, and about 17% "then" and 70% "now" for 1977-78 graduates).

Regional differences in busyness which, in part, may be due to age differences are also evident. Table 58 shows this for Ontario's five regional planning areas (see Figure 2*). The Northeastern and Northwestern regions displayed relatively fewer "less busy" and more "busier" private practitioners.

As implied earlier, the validity of using dentists' perceptions of busyness as a measure of practice activity depends, in part, on how closely busyness correlates with other measures of practice activity such as patient appointment waiting time and patient visit numbers. Tables 59 and 60 examine these two relationships.

For patients' waiting time for an appointment (Table 59), the association with degree of busyness is strong and positive.** Nearly ninety percent of those claiming to be less busy could see patients in 7 days or less, whereas for the "busy as like" group the percent was 32.5% and for the "busier" group it was 9.2%. Just under one percent (0.8%) of the "less busy" group indicated a patient wait time of over 3 weeks, whereas 22% of the "busy as like" group and 58.8% of the "busier" group stated such a wait would be necessary.

* Busyness for smaller geographic areas, counties and individual communities, has been determined but is not included in this report.

** Note that the coding of days for Table 59 differs slightly from that of Table 52. Table 59 assumes that a response of 1, 2 or 3 weeks is equivalent to no more than 7, 14 or 21 days, respectively, and a response of 1 or 2 months means no more than 30 or 60 days.

Table 60 examines whether there is variation in the total patient visits per week* according to dentist busyness, controlling for dentist age. In each age group, dentists claiming to be less busy saw fewer patients and, with one exception, dentists who were busier saw more patients than those who were as busy as they liked. Thus the degree of busyness claimed by the dentists corresponds highly and in the expected direction with practice patient visit numbers. Overall, dentists who were less busy had nearly 15 fewer patient visits per week than those who were as busy as they liked (73.0 vs. 87.9 visits). And dentists under 30 years of age had just over 20 fewer patient visits per week than their "as busy as like" peers (62.5 vs. 83.1 visits).

Because dentist busyness correlated strongly and in the expected direction with both patient appointment wait time and patient visits, it appears that dentist busyness is a valid indicator of practice activity.

*Total patient visits per week includes patients seen by dentists and also, where applicable, by their operating dental auxiliary staff plus, where applicable, any additional patients seen primarily, and perhaps only, by the dentists' operating dental auxiliaries.

TABLE 55

-66-

BUSYNESS OF DENTAL OFFICE/DENTIST

Busyness	Private Practitioners		General Practitioners		Clinical Specialists	
	Frequency	Relative Percent	Frequency	Relative Percent	Frequency	Relative Percent
As Busy As Like To Be	1865	59.8	1589	59.2	223	63.7
Less Busy Than Like To Be	961	30.8	860	32.0	85	24.3
Busier Than Like To Be	291	9.3	236	8.8	42	12.0
Totals	3117	99.9	2685	100.0	350	100.0

TABLE 56

YEAR OF DENTIST GRADUATION BY BUSYNESS - PRIVATE PRACTITIONERS

Graduation	Busyness			Row Total N	Row %
	As Busy As Like	Less Busy	Busier		
1908-1929	60.0	5.7	34.3	35	(1.1)
1930-1939	68.3	11.0	20.7	82	(2.6)
1940-1949	70.6	10.1	19.3	238	(7.7)
1950-1959	72.6	15.8	11.6	645	(20.7)
1960-1969	65.5	25.6	8.9	902	(29.0)
1970-1978	46.0	48.9	5.0	1,208	(38.8)
Column Total N	1,860	959	291	3,110	
Column %	(59.8)	(30.8)	(9.4)		

TABLE 57

YEAR OF DENTIST GRADUATION BY BUSYNESS - GENERAL PRACTITIONERS

Graduation	Busyness			Row Total N	Row %
	As Busy As Like	Less Busy	Busier		
Before 1950	69.7	10.2	20.1	284	(10.6)
1950-1954	72.0	14.0	14.0	286	(10.7)
1955-1959	71.0	20.2	8.9	248	(9.3)
1960-1964	65.3	25.4	9.3	311	(11.6)
1965-1969	67.4	24.5	8.1	432	(16.1)
1970-1974	55.8	37.8	6.4	606	(22.6)
1975	49.6	47.2	3.2	125	(4.7)
1976	30.2	66.7	3.2	126	(4.7)
1977	30.8	66.9	2.3	133	(5.0)
1978	24.2	73.4	2.3	128	(4.8)
Column Total N	1,584	859	236	2,679	
Column %	(59.1)	(32.1)	(8.8)		

TABLE 58

REGIONAL PLANNING AREA BY BUSYNESS - PRIVATE PRACTITIONERS

Area	Busyness			Row Total N	Row %
	As Busy As Like	Less Busy	Busier		
Central	57.6*	33.9	8.4	2,001	(66.0)
Eastern	63.4	26.8	9.8	388	(12.8)
S'western	62.8	27.4	9.8	427	(14.1)
N'eastern	66.4	18.5	15.1	146	(4.8)
N'western	60.3	22.1	17.6	68	(2.2)
Column Total N	1,805	942	283	3,030	
Column %	(59.6)	(31.1)	(9.3)		

* All cells of table contain the percent of the appropriate row total N

TABLE 59

BUSYNESS BY DAYS PATIENTS WAIT FOR AN APPOINTMENT - GENERAL PRACTITIONERS ONLY

	Number of Days							Row Total N	Row %
	≤ 3	4-7	8-14	15-21	22-30	31-60	61+		
As Busy as Like	8.3*	24.2	27.2	18.2	11.4	6.7	4.0	1,561	(59.1)
Less Busy	49.5	39.3	8.7	1.6	0.6	0.2	0.0	852	(32.3)
Busier	4.4	4.8	15.8	16.2	14.0	21.1	23.7	228	(8.6)
Column Total N	561	724	535	335	215	155	116	2,641	
Column %	(21.2)	(27.4)	(20.3)	(12.7)	(8.1)	(5.9)	(4.4)		

*All cells of table contain the percent of the appropriate row total N

TABLE 60

GENERAL PRACTITIONERS' AVERAGE
TOTAL PATIENT VISITS PER WEEK BY BUSYNESS AND AGE

Visits by Busyness Category				
Dentist Age in yrs.	As Busy	Less Busy	Busier	Visits/Age Group
Under 30	83.1*	62.5	87.8 (14)	70.8 (475)*
30.5 - 34.5	94.3	77.1	105.8 (38)	88.2 (615)
35.5 - 39.5	99.9	82.7	94.8 (36)	95.1 (418)
40.5 - 49.5	92.0	86.8	101.3 (49)	91.6 (509)
50.5 - 59.5	80.0	69.2 (52)	88.3 (53)	79.7 (402)
60.5 - 97.5	61.2	48.9 (23)	66.5 (38)	60.8 (103)
All G.P.'s	87.9	73.0	91.7	83.5 (2,621)

(*) except where noted sample size ranges from 106 to 333

APPENDIX 1

* * * * *

ORIGINAL AND FOLLOW-UP QUESTIONNAIRE

MAILINGS TO DENTISTS

The Ontario Dental Association



234 St. George Street
Toronto, Ontario M5R 2P1
(416) 922-3900

November 22, 1978

Dear Colleague:

Dr. Ed Sonley, President of the RCDS and I are writing to urge your active co-operation with the comprehensive dental manpower study now being undertaken by Dr. D.W.Lewis, Professor and Chairman of the Department of Community Dentistry, University of Toronto.

This four-stage survey will take three years to complete. The data-gathering process is now underway and the enclosed questionnaire has been designed so that it can be completed by you within five minutes. The questions have been reviewed by both the ODA and the RCDS, and our suggestions on your behalf have been implemented by the research staff.

As you will note, individual confidentiality has been assured. Your name is not required. Office postal code(s), year of graduation and a serial number are required to provide information on manpower distribution by region, age and function. The basic data will be used only to calculate statistical averages and group profiles and will not be available to any other individuals or agencies.

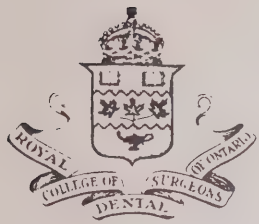
Arrangements have been made for the publication of a summary of the preliminary results of the survey in the Ontario Dentist, early in 1979.

Thank you very much.

Yours truly,

A handwritten signature in cursive script, reading "A. A. Stoyshin".

A. A. Stoyshin, DDS



The Royal College of Dental Surgeons of Ontario

230 St. George Street, Toronto, Ontario M5R 2N5

Telephone (416) 961-6555

Registrar
Kenneth F. Pownall D.D.S.
Deputy Registrar
Edward J. Fox D.D.S.
Assistant-to-the-Registrar
Donald J. McFarlane D.D.S.

November 22, 1978

Dear Doctor:

It is my pleasure to write to you, along with Dr. Art Stoyshin - ODA President - to ask that you complete and return the enclosed manpower study survey form accurately, and as soon as possible.

The involvement in this major study by all licensed dentists in Ontario by means of this questionnaire is vital if the research conclusions are to be useful and credible.

I am sure you are aware of the present, unclear situation regarding dental manpower needs in Ontario and that this comprehensive study is indeed overdue. It promises to deliver a great deal of "hard" information which the profession will be able to utilize in the future. The project encompasses all elements of the dental team.

I think you will agree that the information this questionnaire requests is pertinent and, because it is being gathered impersonally, you should feel free to respond to it fully and frankly.

Thank you very much.

Yours truly,

E. G. Sonley, DDS
President

EGS:am

ONTARIO DENTAL MANPOWER STUDY

CONFIDENTIALITY

Responses to this questionnaire are **STRICTLY CONFIDENTIAL** and will be reported in statistical form only such that individual identity is not revealed. Your questionnaire is identified by a serial number; only the principal investigator has access to the master list relating individual names to serial numbers.

HOW TO ANSWER QUESTIONS

Even if your professional activities have recently changed or will soon change in any way, questions should be answered in terms of your **CURRENT, ACTUAL** situation.

Good estimates are acceptable if exact answers cannot be given.

Each dentist in a group practice or partnership should complete a separate questionnaire.

Questions should be answered by putting a check mark in boxes provided, or by writing in the answer when a line is provided.

PLEASE ANSWER ALL QUESTIONS. YOUR COOPERATION IS IMPORTANT AND APPRECIATED.

1 PLACE OF WORK - POSTAL CODE(S)

If postal code(s) unknown,
fill in city or town name(s).

Main place
of work

Other places of work if
applicable - include any
part-time work

2 YEAR OF BIRTH

3 BIRTHPLACE

4 YEAR & SCHOOL OF D.D.S. GRADUATION 19_____, _____ University

5 SEX M ☐ F ☐

6 PRINCIPAL AREA OF ACTIVITY - Check one only.

- | | | |
|---|---|---|
| ☐ General Practice | ☐ Periodontics | ☐ Academic/Teaching/Research |
| ☐ Orthodontics | ☐ Endodontics | ☐ Postgraduate Studies |
| ☐ Oral Pathology | ☐ Prosthodontics | ☐ Internship |
| ☐ Oral Surgery | ☐ Radiology | ☐ Retired |
| ☐ Paedodontics | ☐ Public Health | ☐ Other ► specify _____ |

7 DO YOU HAVE ANOTHER AREA OF ACTIVITY IN DENTISTRY? YES ☐ Please provide information below. NO ☐ Skip to Question 8.

(e.g., school clinic, instructor, insurance consultant, etc.)

NATURE OF ACTIVITY ► specify _____

HOURS PER WEEK _____ WEEKS PER YEAR _____

8 ARE YOU A CERTIFIED SPECIALIST? YES ☐ Specialty area _____ NO ☐ Year _____

9 IF YOU WILL NOT BE TREATING PATIENTS IN ONTARIO IN 1979 PLEASE CHECK HERE ☐ AND RETURN FORM NOW. THANK YOU.

10 PRIVATE PRACTICE - ARE YOU IN PRIVATE PRACTICE AT ALL, EITHER FULL OR PART-TIME?

YES ☐ Check ONE category below which best describes your practice situation.
NO ☐ Skip to Question 11.

- ☐ Solo practitioner with no sharing of costs.
☐ A partner in a complete partnership
☐ Without partners but with sharing of costs and/or employees
☐ Employed as an associate
☐ Other ► specify _____

► WITH HOW MANY OTHER DENTISTS? - exclude yourself _____

11 DO YOU HAVE A MANAGEMENT COMPANY? YES ☐ NO ☐

12 IF ALLOWED BY LAW, WOULD YOU INCORPORATE YOUR PRACTICE? YES ☐ NO ☐

13 SALARIED EMPLOYMENT - ARE YOU TREATING ANY PATIENTS WHILE IN A SALARIED POSITION?

YES ☐ Check one category below which best describes your salaried employment.
NO ☐ Skip to Question 12.

- | | |
|--|---|
| ☐ Hospital | ☐ Other Federal Government |
| ☐ Dental School | ☐ Provincial Government |
| ☐ Dental Corps | ☐ Municipal Government |
| | ☐ Other ► specify _____ |

Office Use Only

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15

ONTARIO DENTAL MANPOWER STUDY

 University of Toronto, Faculty of Dentistry
 124 Edward Street Toronto, Ontario M5G 1G6
Telephone: (416) 978-6226

December 13, 1978

Dear Colleague,

SURVEY OF ALL DENTISTS IN ONTARIO

The return of our bright yellow questionnaire has been very encouraging. We feel that this positive response is a good demonstration of concern by dentists about the whole question of dental manpower in Ontario. We remind you that our study is being conducted with the cooperation and support of the Ontario Dental Association and the Royal College of Dental Surgeons of Ontario.

If your completed questionnaire is already in the mail, please forgive this reminder. If, however, as our records show, you have not yet sent us your questionnaire, we urge you to fill it out and mail it today. Each individual response contributes to the development of an accurate representation of the Ontario situation.

Thank you for your help, and may we add our best wishes for the holiday season.

Sincerely,



D. W. LEWIS, D.D.S., D.D.P.H.,
M.Sc.D., F.R.C.D.(C)

ONTARIO DENTAL MANPOWER STUDY

 University of Toronto, Faculty of Dentistry
 124 Edward Street Toronto, Ontario M5G 1G6
Telephone: (416) 978-6226

January 5, 1979

Dear Colleague,

SURVEY OF ALL DENTISTS IN ONTARIO

The response by dentists to our survey continues to be most encouraging. Completed questionnaires have now been received from the majority of practitioners. The enclosed clippings illustrate the strong support that our study is receiving from both the O.D.A. and the R.C.D.S.

As of today, we have not yet received YOUR reply. WE STILL WANT TO HEAR FROM YOU! Please take a few minutes to fill out the questionnaire and put it in the mail today — a duplicate survey form and a stamped return envelope are enclosed for your convenience.

To better understand the dental manpower situation in Ontario, we are interested in basic information for all licensed D.D.S.'s in the province. If you are engaged in post-graduate studies or research, if you are in the armed forces or just starting a new type of practice, if you are retired or in any other 'special' situation, please complete all relevant questions. Please note that if you will not be treating patients in Ontario in 1979, you are requested to answer only Questions 1 through 9.

If you have already sent in your questionnaire, please forgive this reminder and accept our thanks for your assistance.

Wishing you health and happiness in 1979.

Sincerely,

D.W. Lewis

D. W. LEWIS, D.D.S., D.D.P.H., M.Sc.D.,
F.R.C.D.(C)



NEWSLETTER

The Royal College of Dental Surgeons of Ontario
230 St. George Street, Toronto, Ontario M5R 2N5

November 1978



"From the President"

A.A. Stoyshin, DDS

President The Ontario Dental Association

ONTARIO DENTIST VOLUME 55, NO. 11, NOVEMBER, 1978

Manpower:

Will there soon be a surplus of dentists in Ontario? How many dentists are required to provide adequate dental care? Will the demand for dental services increase in the future? How will the drop in the birth rate affect the need for care? Will immigration policies change? Will political unrest in other countries and provinces bring an increased number of practitioners to Ontario? Will unemployment and a poor economic outlook for the country in general affect the demand for dental care? Fluoridation, improved oral hygiene, better nutrition and other preventive measures have lessened the need for certain dental procedures, but do we know by how much? Will dental insurance plans by private carriers increase? Will companies and unions establish dental clinics? Is "denticare" just around the corner? Will government consider other forms of dental care delivery, utilizing individuals with less training than dentists? The number of trained dental auxiliaries is increasing rapidly — what effect will this have on dental care delivery? Will the fact of our ageing population have an effect on the type of dental care required in the future?

As you can see, there are many "unknowns" in the equation required to project the needs of the public in Ontario concerning dental services in the future.

Are there warning signals already that we may be training more dentists and dental auxiliaries than are needed? From the vantage point of the R.C.D.S. this appears to be the case. Several younger dentists who recently established their own practice report that they are finding it slow. Dentists seeking part-time associateships are increasing. Enquiries from dentists about the possibility of advertising have doubled. More dentists are finding smaller and more remote communities more attractive. More dental hygienists are actively seeking employment. According to reports, several denture therapists are not busy.

All this points out the need for a scientific study of the situation. It would be unwise to consider decreasing the number of dental and dental hygiene students should an ever-increasing demand for our services be indicated. On the other hand, however, in view of the very high costs of educating dental personnel and the limited utilization of dental skills in other occupations, it would be equally unwise to increase or even maintain the number of undergraduate students if facts demonstrated no necessity for such action.

A questionnaire is being prepared. It is important that the researchers (Dr. D.W. Lewis, Chairman of the Department of Community Dentistry, University of Toronto, and his staff) obtain valid results. Accordingly, the College requests your assistance by completing the questionnaire as accurately and as quickly as possible. Individual confidentiality is assured.

Manpower

In a general sense, the profession's entire approach to manpower planning has been somewhat less than adequate. At one time we said we needed more auxiliaries...now we have more auxiliaries and many members of the profession feel we have too many. People in Southern Ontario are saying we are graduating too many dentists while people in Northern Ontario say we don't have enough. Most of these opinions are based on personal perception, rather than on any scientific fact. We are hoping that a major study begun recently by Dr. Don Lewis of the U of T's Faculty of Dentistry and funded by an extensive provincial government grant will shed some definitive light on the problem. I would ask that you co-operate with Dr. Lewis and his colleagues by completing your copy of the survey form.

Dr. Lewis' three-year research project will analyse the actual needs and demands for all types of dental services on a geographic basis and compare these results with the supply and distribution of dental practitioners, specialists and auxiliaries.

My hope is that we will eventually be in a position to make appropriate changes in our educational priorities and in other methods of planning to bring some sense out of the current situation.

APPENDIX 2

COMPARISON OF SURVEY RESPONSE
BY COUNTY, DISTRICT OR REGION

Place	Respondents		Non-Respondents		Response Rate %
	N	%	N	%	
Central Regional Planning Area	2,132	100.0	429	100.0	83.2
Brant	32	1.5	6	1.4	84.2
Dufferin	9	0.4	2	0.4	81.8
Durham	101	4.7	10	2.3	90.9
Haldimand- Norfolk	21	1.0	2	0.5	91.3
Haliburton	2	0.1	0	0.0	100.0
Halton	95	4.5	19	4.4	83.3
Hamilton- Wentworth	153	7.2	33	7.7	82.3
Muskoka	13	0.6	0	0.0	100.0
Niagara	124	5.8	29	6.8	81.1
Northumberland	14	0.7	1	0.2	93.3
Peel	134	6.3	29	6.8	82.2
Peterborough	44	2.1	2	0.5	95.7
Simcoe	67	3.1	9	2.1	88.2
Metropolitan Toronto	1,059	49.7	263	61.3	80.1
Victoria	11	0.5	2	0.5	84.6
Waterloo	124	5.8	10	2.3	92.5
Wellington	50	2.3	2	0.5	96.1
York	79	3.7	10	2.3	88.8

Place	Respondents		Non-Respondents		Response Rate %
	N	%	N	%	
Eastern Regional Planning Area	433	100.0	58	100.0	88.2
Frontenac	41	9.5	6	10.3	87.2
Hastings	38	8.8	4	6.9	90.5
Lanark	16	3.7	1	1.7	94.1
Leeds & Grenville	21	4.9	2	3.4	91.3
Lennox- Addington	5	1.1	3	5.2	62.5
Ottawa- Carleton	246	56.8	36	62.1	87.2
Prescott & Russell	13	3.2	0	0.0	100.0
Prince Edward	5	1.2	0	0.0	100.0
Renfrew	27	6.2	3	5.2	90.0
Stormont, Dundas & Glengarry	20	4.6	3	5.2	87.0
Southwestern Regional Planning Area	475	100.0	53	100.0	90.0
Bruce	12	2.5	2	3.8	85.7
Elgin	17	3.6	0	0.0	100.0
Essex	112	23.6	12	22.6	90.3
Grey	24	5.1	6	11.3	80.0
Huron	11	2.3	0	0.0	100.0
Kent	35	7.4	2	3.8	94.6
Lambton	33	6.9	7	13.2	82.5
Middlesex	177	37.3	22	41.5	88.9
Oxford	33	6.9	2	3.8	94.3
Perth	21	4.4	0	0.0	100.0

Place	Respondents		Non-Respondents		Response Rate
	N	%	N	%	%
Northeastern Regional Planning Area	163	100.0	19	100.0	89.6
Algoma	41	25.1	4	21.0	91.1
Cochrane	19	11.7	3	15.8	86.4
Manitoulin	3	1.8	1	5.3	75.0
Nipissing	28	17.2	4	21.0	87.5
Parry Sound	9	5.5	1	5.3	90.0
Sudbury (District)	4	2.5	2	10.5	66.7
Sudbury (Reg. Mun.)	52	31.9	3	15.8	94.5
Timiskaming	7	4.3	1	5.3	87.5
Northwestern Regional Planning Area	75	100.0	8	100.0	90.4
Kenora	16	21.3	1	12.5	94.1
Rainy River	6	8.0	0	0.0	100.0
Thunder Bay	53	70.7	7	87.5	88.3

APPENDIX 3

LOCATION OF MAIN OFFICE OF PRACTICE
BY COUNTY AND REGIONAL PLANNING AREA

All Respondents			Full- or Part-Time Private Practitioners		
Place	Frequency	Relative Percent	Place	Frequency	Relative Percent
Central Regional Planning Area	2,132	100.0	Central Regional Planning Area	2,033	100.0
Brant	32	1.5	Brant	29	1.4
Dufferin	9	0.4	Dufferin	9	0.4
Durham	101	4.7	Durham	99	4.9
Haldimand- Norfolk	21	1.0	Haldimand- Norfolk	21	1.0
Haliburton	2	0.1	Haliburton	2	0.1
Halton	95	4.5	Halton	94	4.6
Hamilton- Wentworth	153	7.2	Hamilton- Wentworth	149	7.3
Muskoka	13	0.6	Muskoka	13	0.6
Niagara	124	5.8	Niagara	121	5.9
Northumberland	14	0.7	Northumberland	13	0.6
Peel	134	6.3	Peel	132	6.5
Peterborough	44	2.1	Peterborough	44	2.2
Simcoe	67	3.1	Simcoe	59	2.9
Metropolitan Toronto	1,059	49.7	Metropolitan Toronto	989	48.6
Victoria	11	0.5	Victoria	11	0.5
Waterloo	124	5.8	Waterloo	121	5.9
Wellington	50	2.3	Wellington	49	2.4
York	79	3.7	York	78	3.8

continued

All Respondents			Full- or Part-Time Private Practitioners		
<u>Place</u>	<u>Frequency</u>	<u>Relative Percent</u>	<u>Place</u>	<u>Frequency</u>	<u>Relative Percent</u>
Eastern Regional Planning Area	432	100.0	Eastern Regional Planning Area	397	100.0
Frontenac	41	9.5	Frontenac	39	9.8
Hastings	38	8.8	Hastings	35	8.8
Lanark	16	3.7	Lanark	14	3.5
Leeds & Grenville	21	4.9	Leeds & Grenville	19	4.8
Lennox- Addington	5	1.1	Lennox- Addington	5	1.3
Ottawa- Carleton	246	56.9	Ottawa- Carleton	225	56.7
Prescott & Russell	13	3.0	Prescott & Russell	13	3.3
Prince Edward	5	1.1	Prince Edward	4	1.0
Renfrew	27	6.3	Renfrew	24	6.0
Stormont, Dundas & Glengarry	20	4.6	Stormont, Dundas & Glengarry	19	4.8
Southwestern Regional Planning Area	475	100.0	Southwestern Regional Planning Area	432	100.0
Bruce	12	2.5	Bruce	11	2.5
Elgin	17	3.6	Elgin	16	3.7
Essex	112	23.6	Essex	107	24.8
Grey	24	5.1	Grey	24	5.5
Huron	11	2.3	Huron	10	2.3
Kent	35	7.4	Kent	34	7.9
Lambton	33	6.9	Lambton	33	7.6
Middlesex	177	37.3	Middlesex	145	33.6
Oxford	33	6.9	Oxford	31	7.2
Perth	21	4.4	Perth	21	4.9

continued

All Respondents

<u>Place</u>	<u>Frequency</u>	<u>Relative Percent</u>
Northeastern Regional Planning Area	163	100.0
Algoma	41	25.1
Cochrane	19	11.7
Manitoulin	3	1.8
Nipissing	28	17.2
Parry Sound	9	5.5
Sudbury (District)	4	2.5
Sudbury (Reg. Mun.)	52	31.9
Timiskaming	7	4.3
Northwestern Regional Planning Area	75	100.0
Kenora	16	21.3
Rainy River	6	8.0
Thunder Bay	53	70.7

Full- or Part-Time
Private Practitioners

<u>Place</u>	<u>Frequency</u>	<u>Relative Percent</u>
Northeastern Regional Planning Area	148	100.0
Algoma	39	26.3
Cochrane	17	11.5
Manitoulin	3	2.0
Nipissing	22	14.9
Parry Sound	9	6.1
Sudbury (District)	3	2.0
Sudbury (Reg. Mun.)	48	32.4
Timiskaming	7	4.7
Norwestern Regional Planning Area	69	100.0
Kenora	12	17.4
Rainy River	6	8.7
Thunder Bay	51	73.9



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